FAB02401-R. 3403. A

作成承認印	配布許可印
ニコン カメラ CS推進部 GM	

Multi Photomic Finder DP-30

REPAIR MANUAL

Nikon | NIKON CORPORATION
Tokyo, Japan

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Disassembly and assembly

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1. Disassembly

Cover unit

(•) mark comes to the top.

Align the metering mode selector on the top cover with the (•) mark.

↓

153 x 4 (screws)
163 (screw)

↓

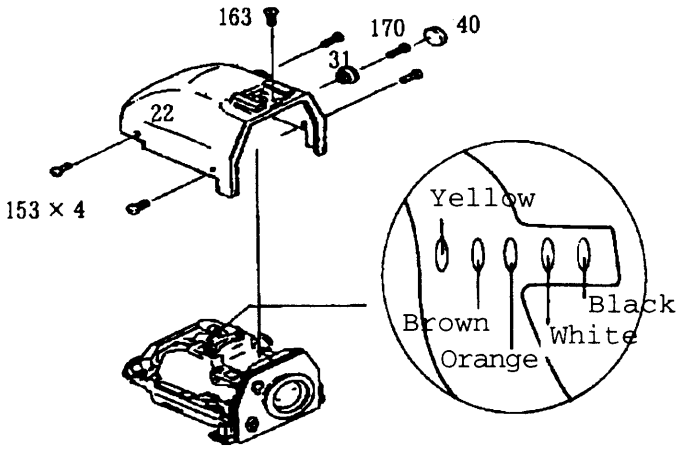
Diopter adjustment knob
40 (diopter adjustment knob cover)

↓

170 (screw)

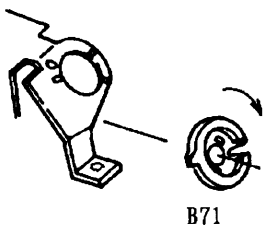
↓

31 (diopter adjustment knob)



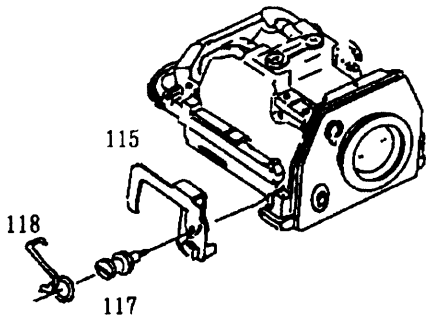
Remove cords (x5) (yellow, brown, orange, white, and black)

P retaining support unit



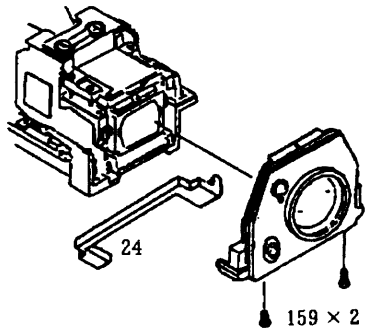
Rotate the metering mode revolving plate (B71) clockwise and pull it out to remove.

Viewfinder lock plate



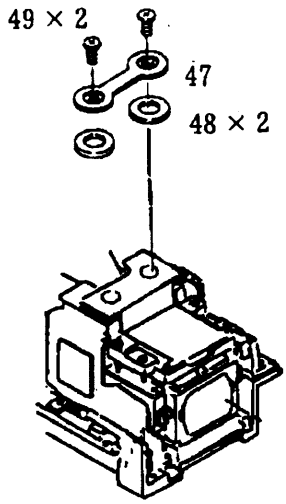
118 (spring)
↓
117 (screw)
↓
115 (viewfinder lock plate)

Eyepiece unit



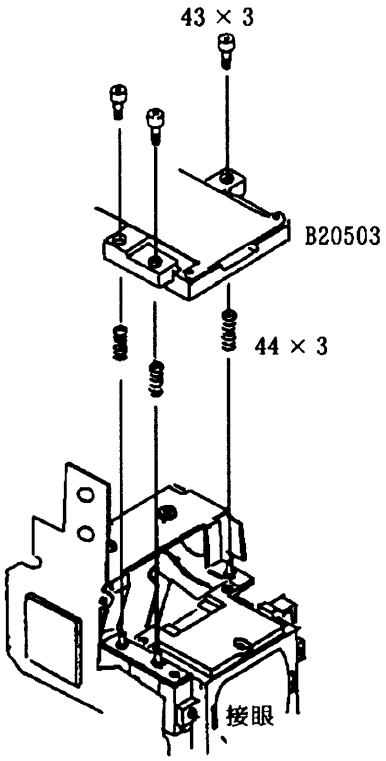
24 (base rubber)
↓
159 x 2 (screws)
↓
Attach the eyepiece unit.

Pressed contact parts



49 x 2 (screw)
↓
47 (round pressed contact plate)
↓
48 x 2 (round pressed contact rubber)

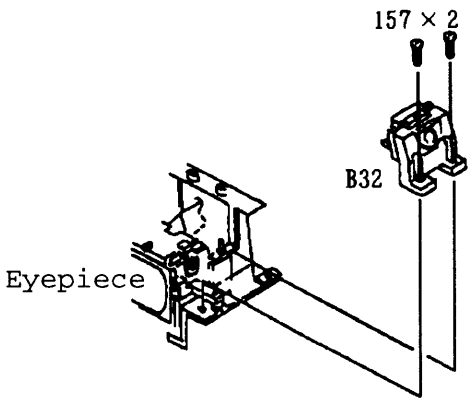
Metering FPC



43 x 3 (U-AMP adjustment screw)
↓
B20503 (metering FPC)
↓
44 x 3 (U-AMP adjustment spring)

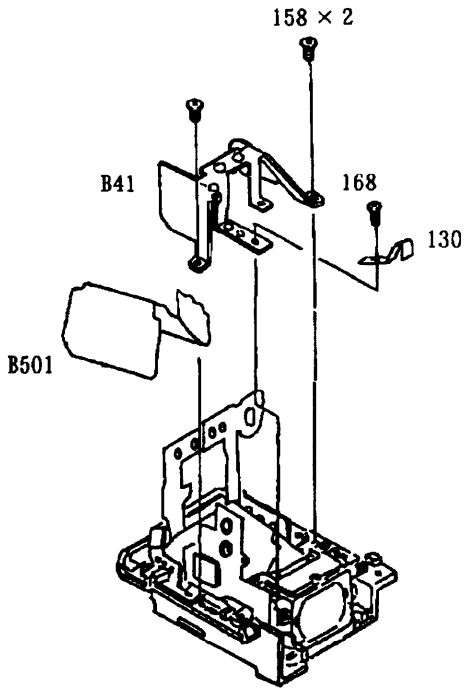
Note: Take care not to lose U-AMP adjustment spring (3044) under the metering FPC.

Diopter adjustment pedestal



157 x 2 (screw)
↓
B32 (diopter adjustment pedestal)

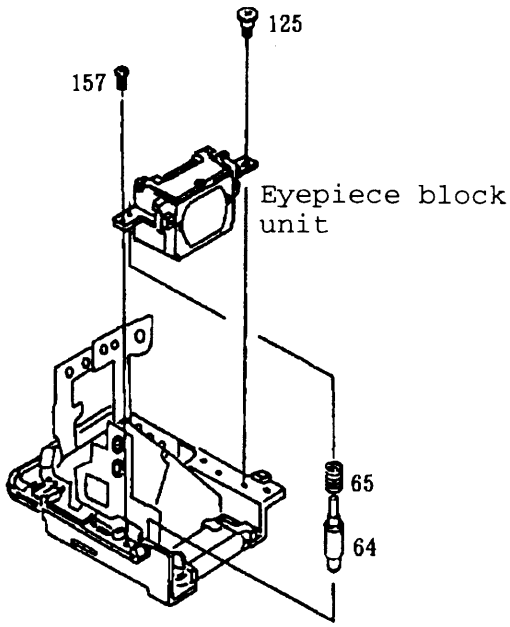
U-AMP supperter/main FPC



158 x 2 (screws)
↓
168 (screw)
↓
130 (spring)
↓
B41 (U-AMP supporter)
B501 (main FPC)

U-AMP supporter (B41) and main FPC (B501) can be detached as a set.

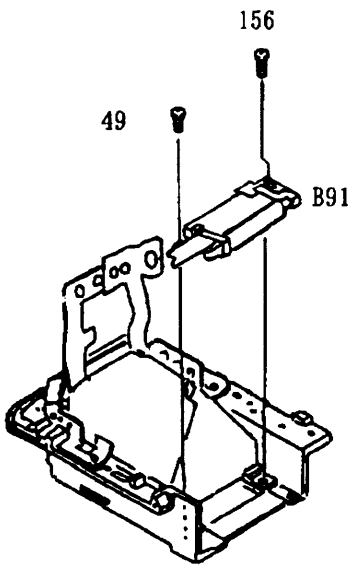
Eyepiece block unit



157 (screw)
↓
125 (screw)
↓
Eyepiece block unit
↓
65 (screen retaining spring)
↓
64 (screen retainer)

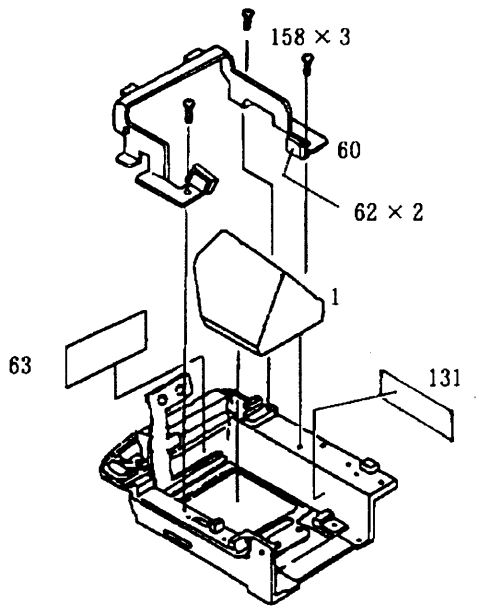
Note: Remove the eyepiece block unit toward the upper side. Do not forget to take out the screen retaining spring and retaining parts.

Viewfinder display LCD



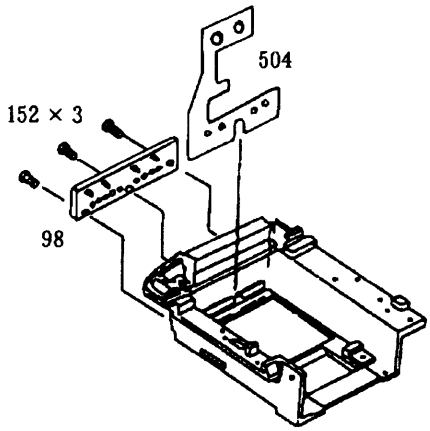
49 (screw)
↓
156 (screw)
↓
B91 (viewfinder display LCD unit)

Pentaprism retaining supporter/pentaprism



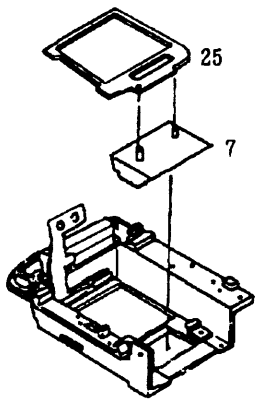
158 x 3 (screw)
↓
60 (pentaprism retaining supporter)
↓
1 (pentaprism)
↓
63 (pentaprism protection sheet (large))
↓
131 (pentaprism protection sheet (small))

FD contacts



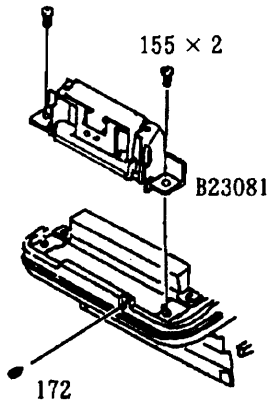
152 x 3 (screw)
↓
98 (F contact cover)
↓
504 (FD contact FPC)

Diopter frame



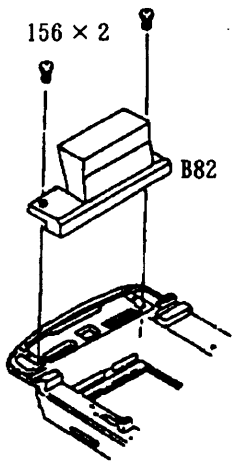
25 (diopter frame)
↓
7 (prism for lower display)

Mirror supporting unit

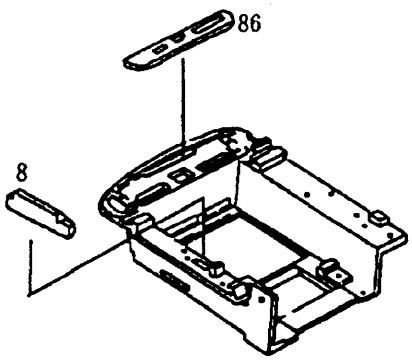


155 x 2 (screw)
↓
B23081 (mirror supporter)
↓
172 (adjusting screw)

Fixed M holding block



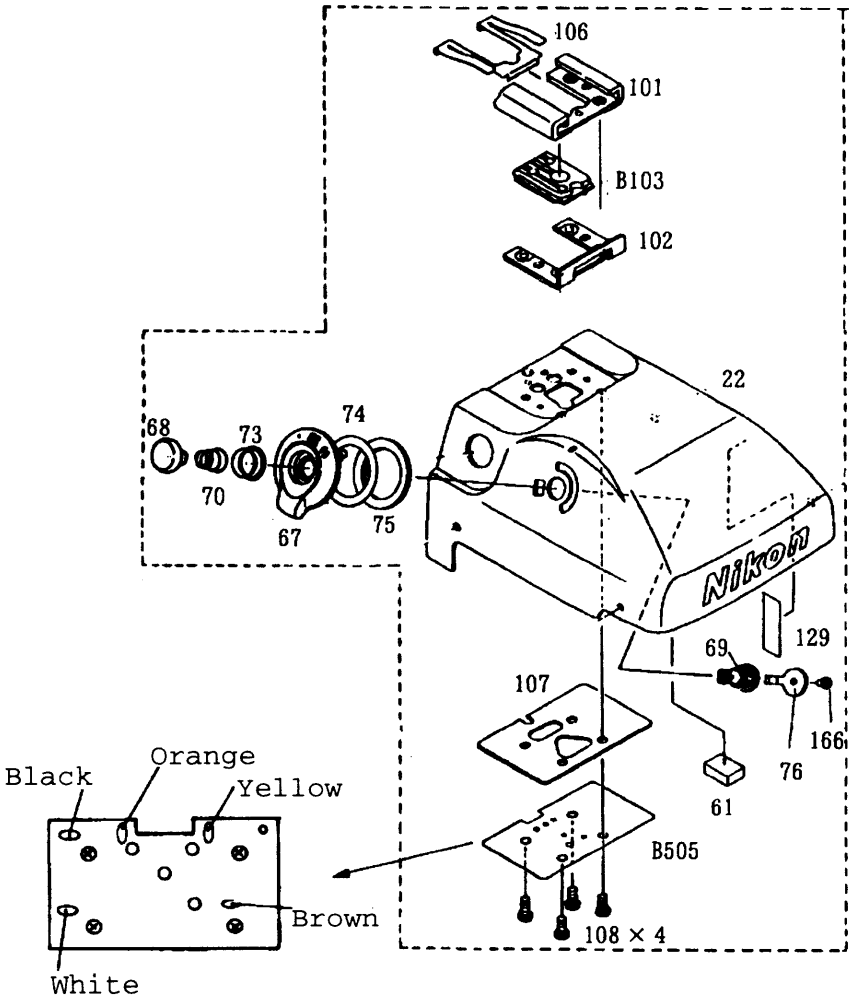
156 x 2 (screw)
↓
B82 (fixed M holding block)



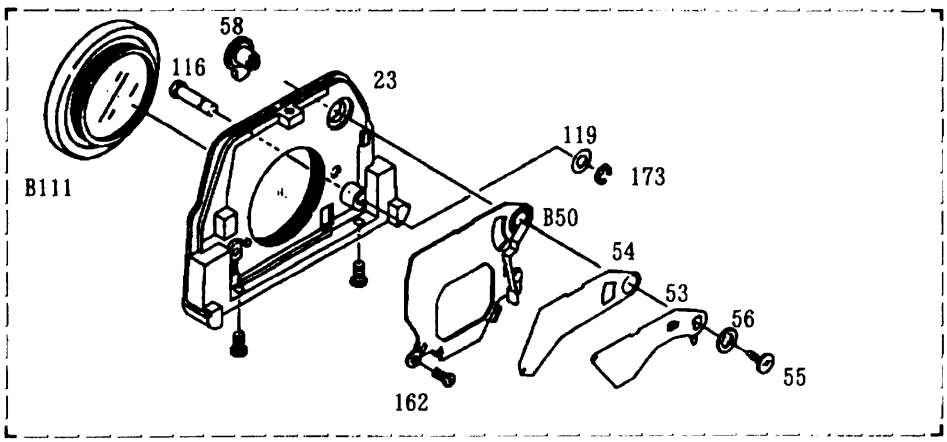
86 (acrylic material for diopter frame)
↓
8 (Prism for horizontal display)

2. Disassembling by each unit part

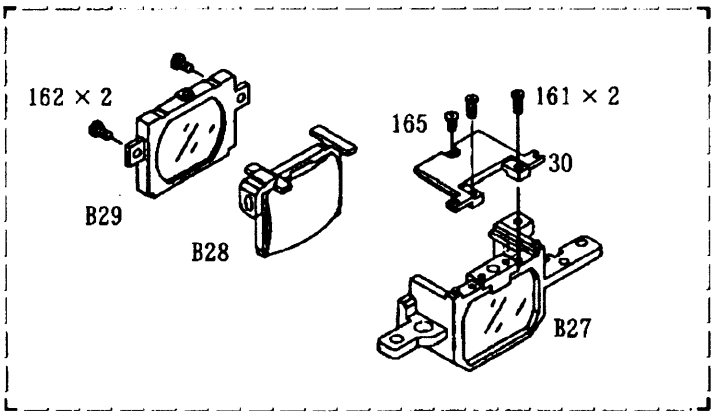
Top cover unit



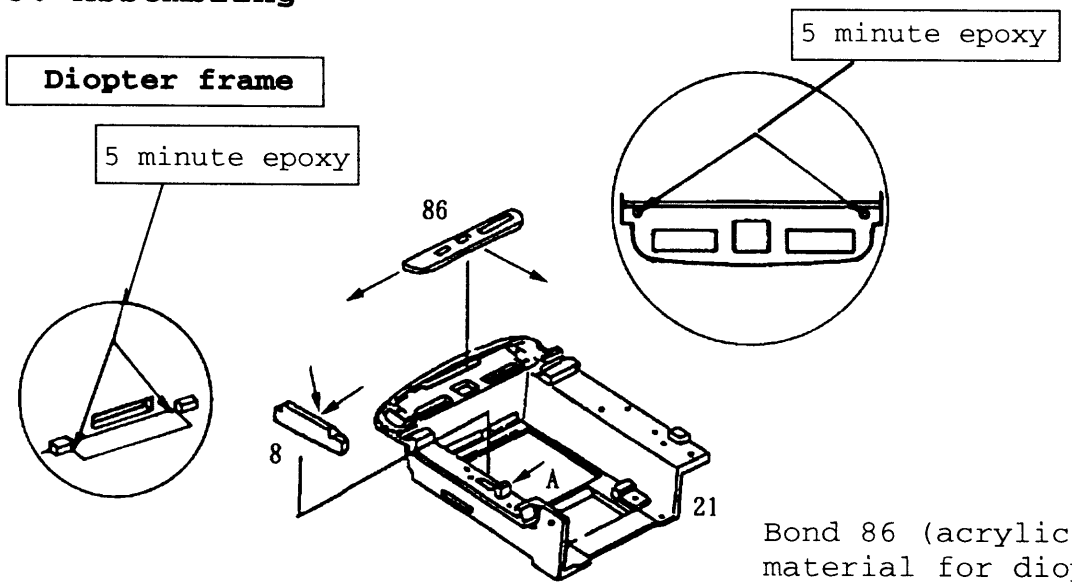
Eyepiece



Eyepiece lens unit

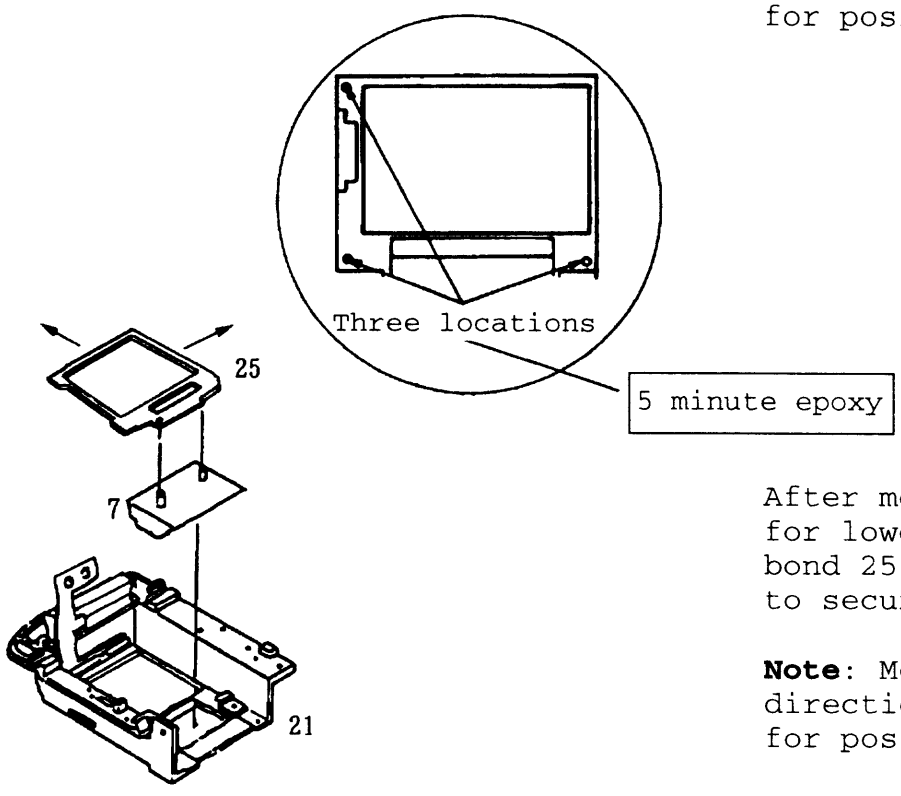


3. Assembling



Bond 86 (acrylic material for diopter frame) with 8 (prism for display) to 21 and secure them.

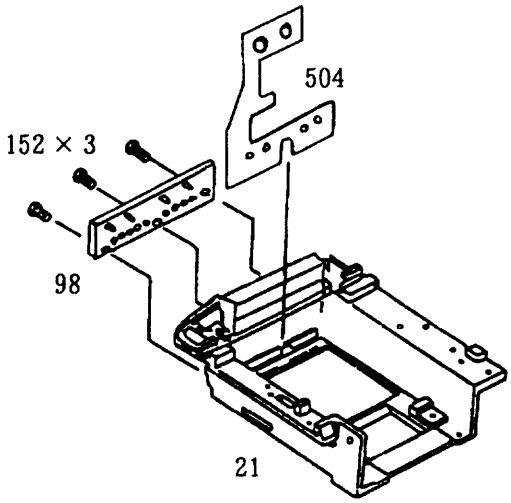
Note: Move aside in the direction of the arrow for positioning.



After mounting 7 (prism for lower display), bond 25 (diopter frame) to secure.

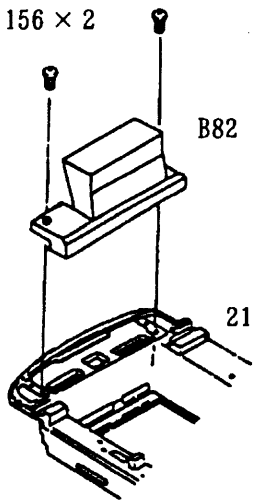
Note: Move aside in the direction of the arrow for positioning.

FD contact FPC

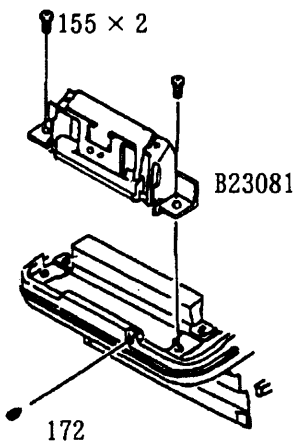


Thread 504 (FD contact FPC) into the groove of 21 (main body).
↓
Mount 98 (F contact cover) on 21 aligning the hole on 504 (FD contact FPC).
↓
Secure 18 (F contact cover) using screws 152 (X3).

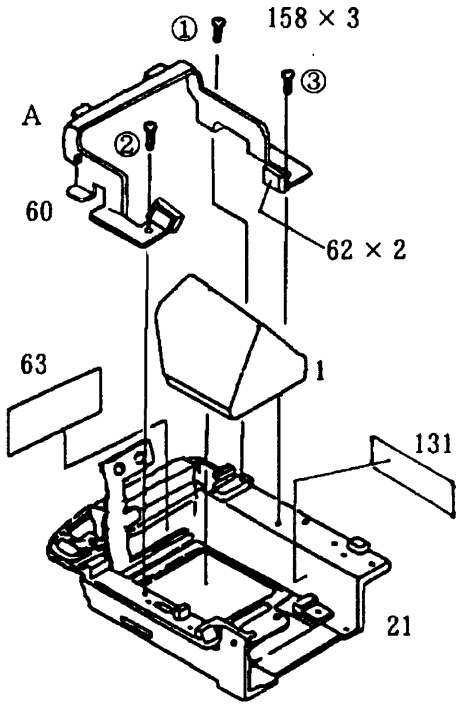
Fixed M holding block



Mirror supporting unit

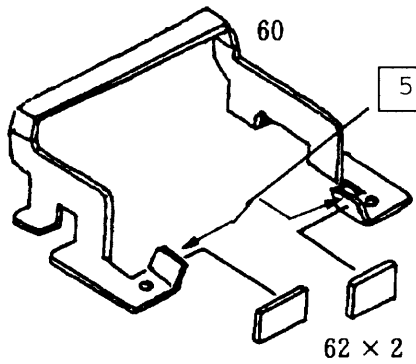


Pentaprism/pentaprism retaining support

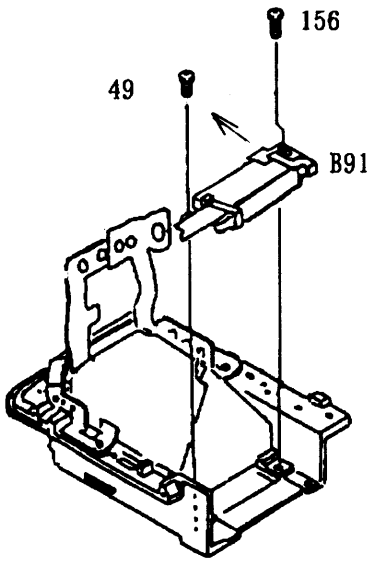


Note: Do not forget to attach 63 (protection sheet)

Note: Press portion A when attaching 60 (pentaprism retaining support.



Viewfinder display LCD



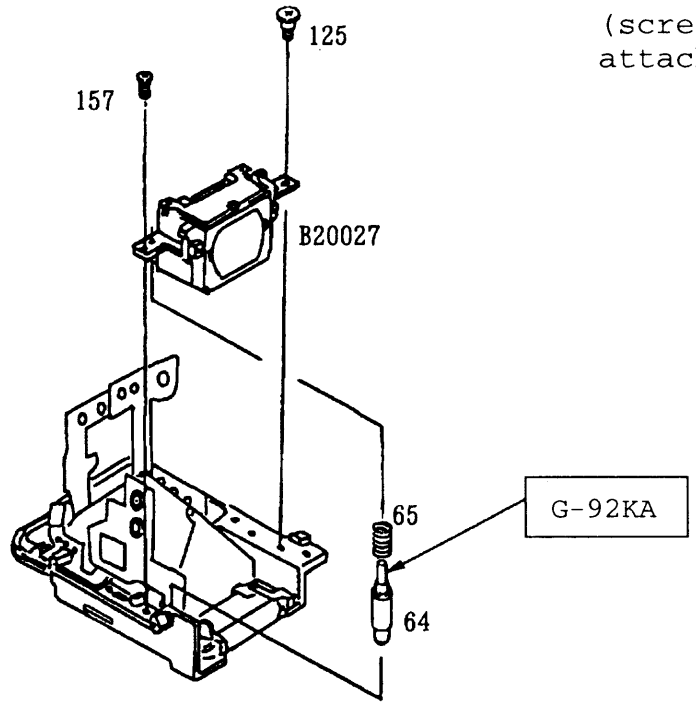
Move B91 (viewfinder display LCD) sideways toward the pentaprism side, and secure B91 using screws.

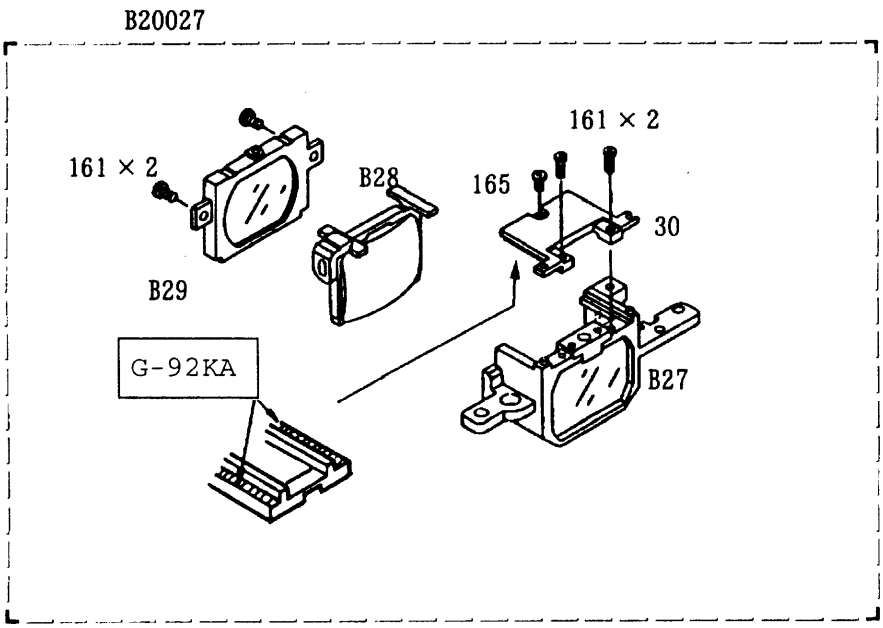
Note: Refer to Adjustment section for viewfinder display LCD positioning.

Note: Move sideways in the direction of the arrow and secure with screws.

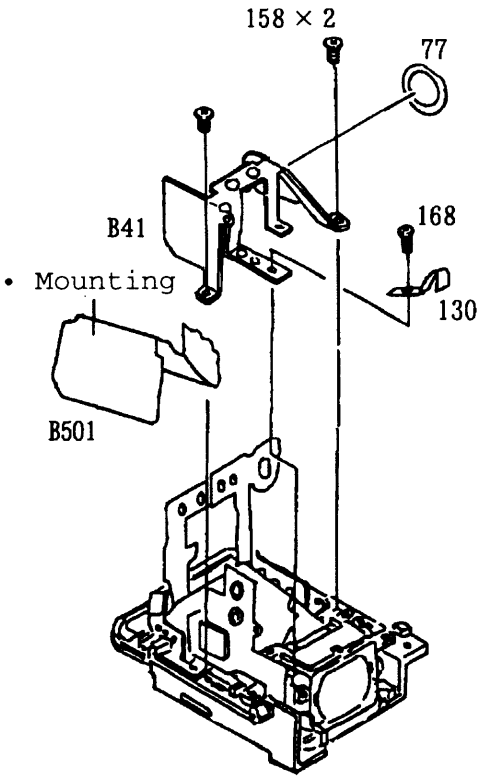
Eyepiece block

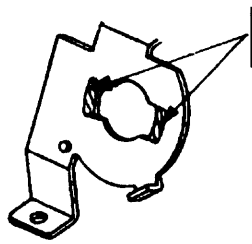
Note: Check movement of 64 (screen retainer) after attachment.



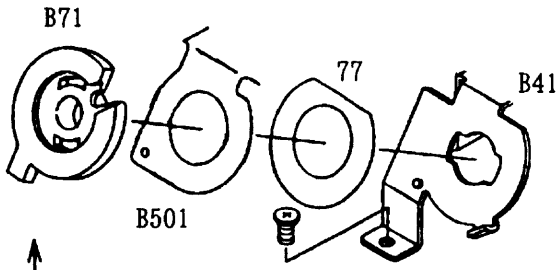


U amplifier support/main FPC



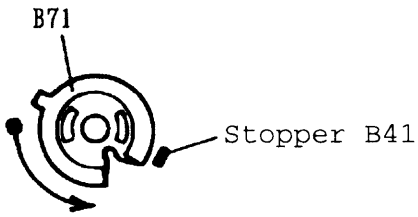


Attach B501 to B401 using 77 (double coated adhesive tape).

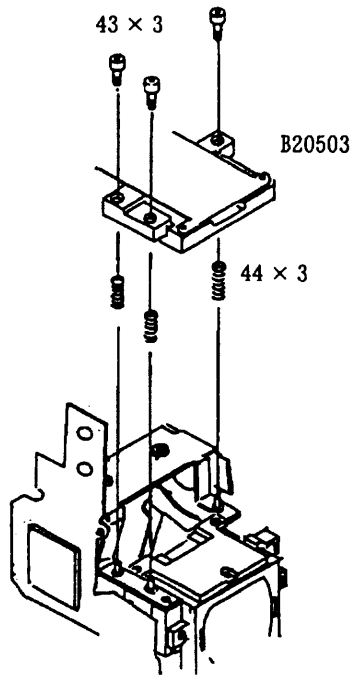


Attaching method

Rotate B71 counter-clockwise until it comes into contact with stopper B41.



Metering FPC unit

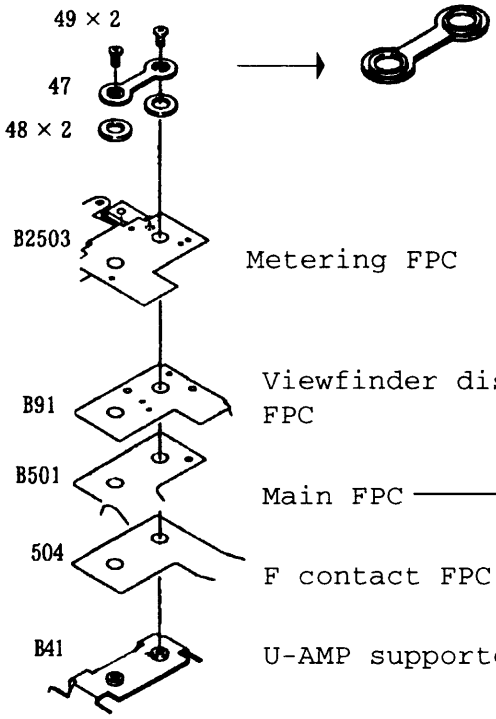


(1) Carefully attach screw and spring.

O ×

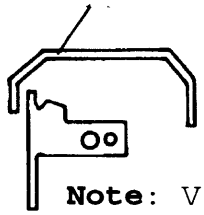
Fasten screw 43 approx. 9 turns.

Pressed contact parts



Face the surface with protruding part up.

Pentaprism retaining supporter



Metering FPC

Viewfinder display FPC

Main FPC

F contact FPC

U-AMP supporter

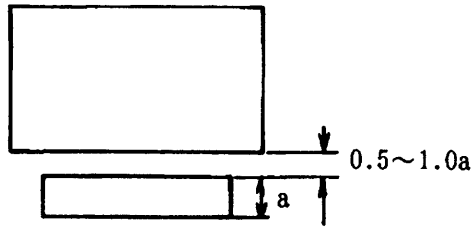
Note: Viewfinder display FPC should be inside of the pentaprism retaining support.

Note: Do not confuse overlapping order of FPCs.

Viewfinder display LCD position adjustment

Standard rating:

Vertical position



Inclination

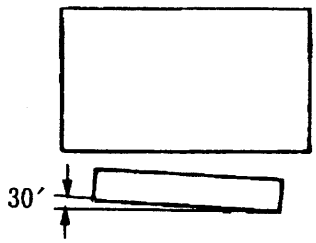
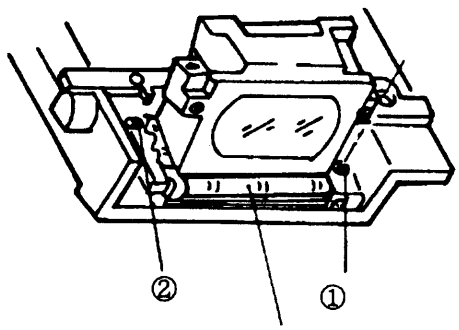


Fig. 1

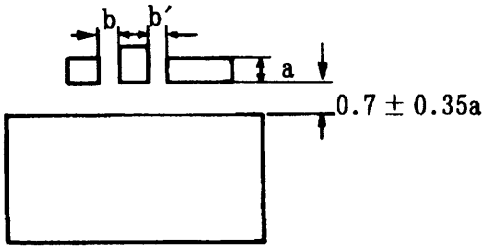


Viewfinder display FPC

1. Mount the viewfinder on the camera.
2. Push the viewfinder toward the lens side (because the tension of the viewfinder lock lever is weak.)
3. Press the shutter release button lightly to light up the LCD.
4. Unscrew two screws [(1) and (2)].
5. Looking through the viewfinder, move the viewfinder display FPC to adjust so that the LCD comes into the standard rating range as shown in Fig. 1.
6. After adjustment, fasten screws (1) and (2) to secure the LCD.

Viewfinder upper display window adjustment

Standard rating: b=b′

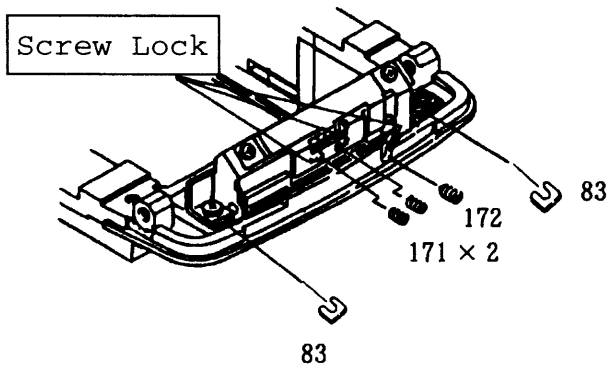


Bottom side position of the middle window is the same as the those at right and left sides.

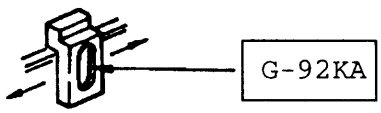
(1) Vertical position adjustment
Windows at right and left sides –> Rotate screw 171 to adjust.
Middle window –> Rotate screws 171 (x2) to adjust.

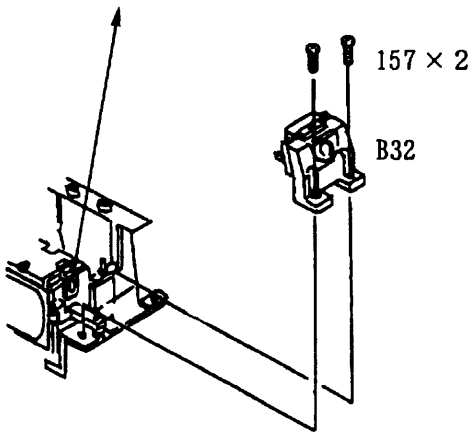
(2) Inclination adjustment
Insert 83 (washer) under the mirror supporter to adjust.

(3) Apply adhesive to screws (172, 171).

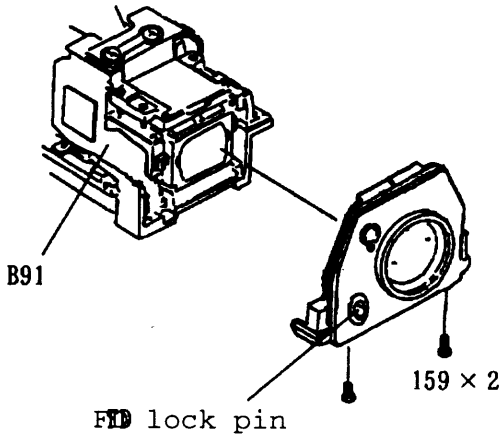


Diopter adjustment pedestal

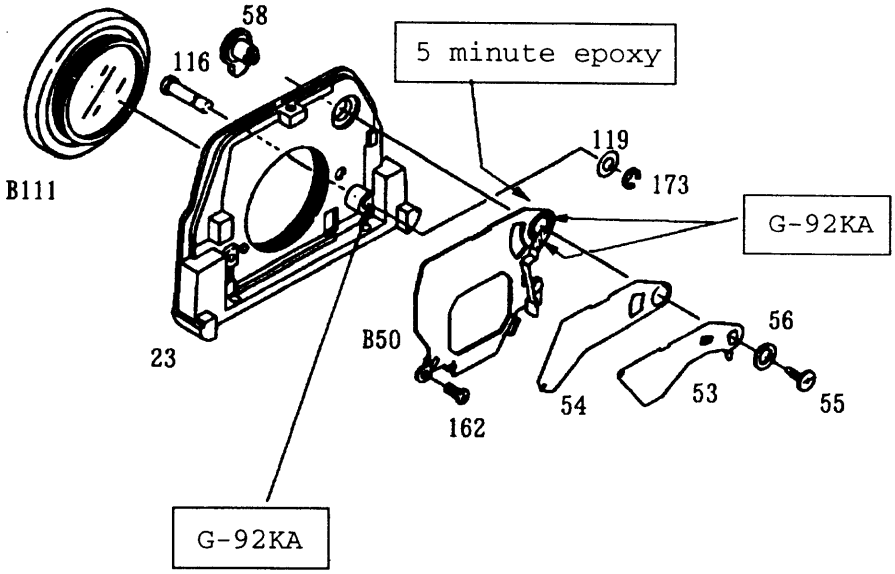




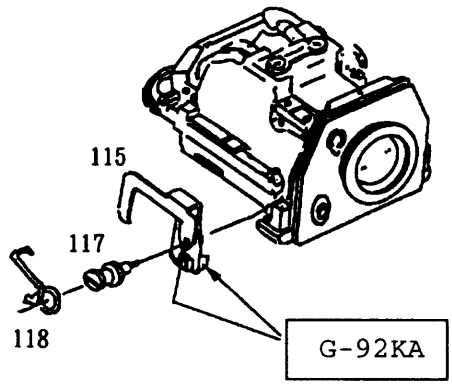
Eyepiece unit



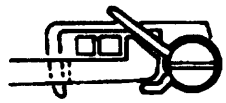
Note: Mount the eyepiece block unit after putting B91 (viewfinder display FPC) aside (because FD pin comes into contact with FPC.)



FD block plate

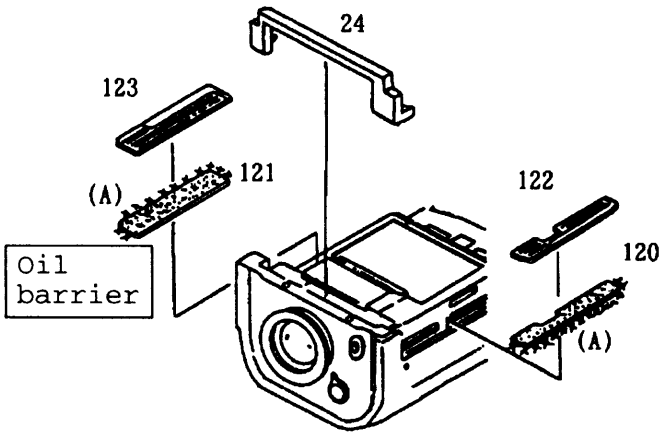


(1) Apply oil to 115 (FD lock plate)
(2) Mount 115 (FD lock plate)
(3) Secure using screw 117.
(4) Hook spring 118.

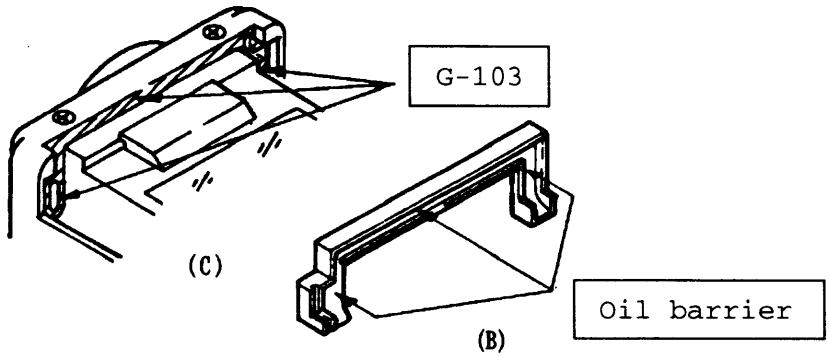


(5) Check movement of the lever after attachment.

Rubber base bonding

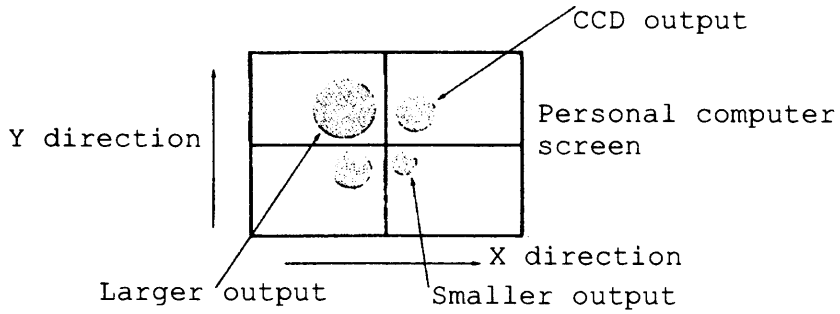


Apply oil barrier to portion X on the side of (A)
Apply oil barrier to whole area on the inside of (B).
Apply adhesive on the shaded area of (C).



AE CCD alignment inspection and adjustment

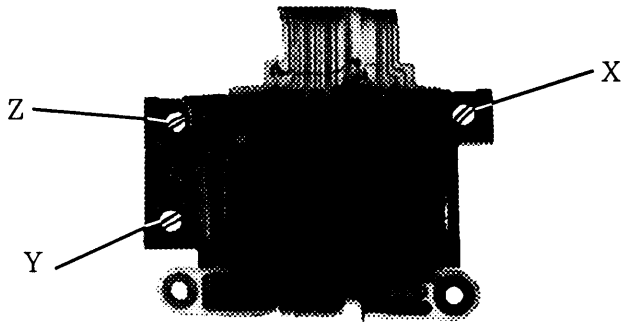
1) Fasten screws X, Y, and Z all the way, then loosen them 3 turns. This is the proper setting.
2) Mount the tool (J15328-2) to the focusing screen attaching unit on the camera body and turn ON the LED lamp at the center of the tool.
3) Select "AE CCD alignment inspection and adjustment" on the adjustment software menu, and communicate with the personal computer. Monitor the AE CCD output.



4) Adjust screws so that each of the AE CCD outputs displayed on the personal computer screen is the same.

   Rating value: The minimum output should be more than 50% of the maximum output.

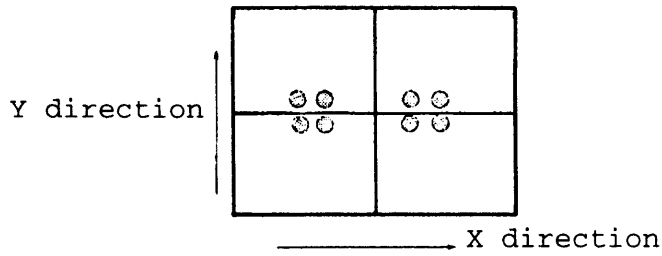
   Adjustment method



   Rotate X or Y screw to adjust.
   We recommend not rotating the Z screw except only when it is absolutely necessary, as the Z screw is a reference screw. (Refer to the PC screen.)

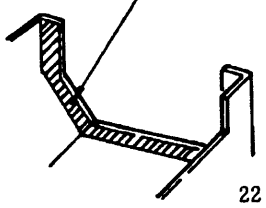
5) Check inclination.
   Turn the LEDs on the right and left of the tool (J15328-2).

6) Check that CCD alignment looks like the figure below. If there is a large deviation, replace the FPC with a new one.



Top cover

Oil barrier



Apply oil barrier to the shaded area.

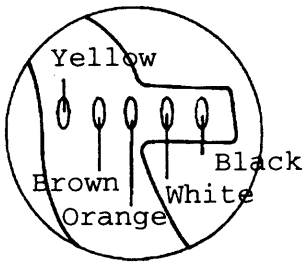
Notch comes top.

Main body side

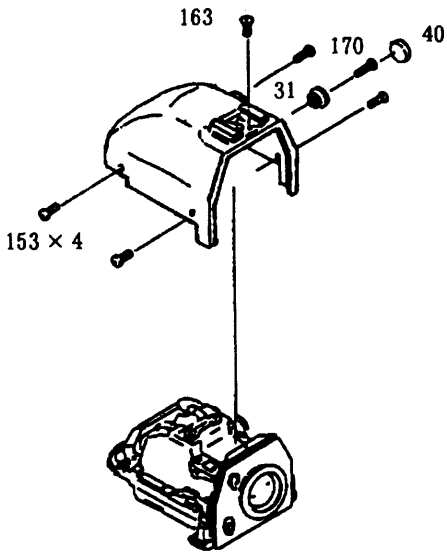
Set as shown in the figure on the left.

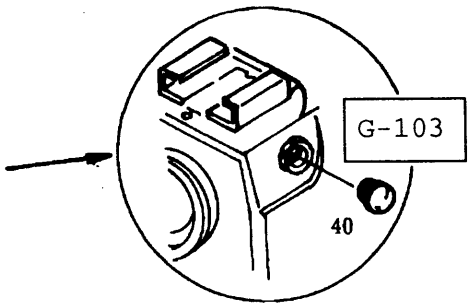
(•) mark comes to the top.

Top cover side

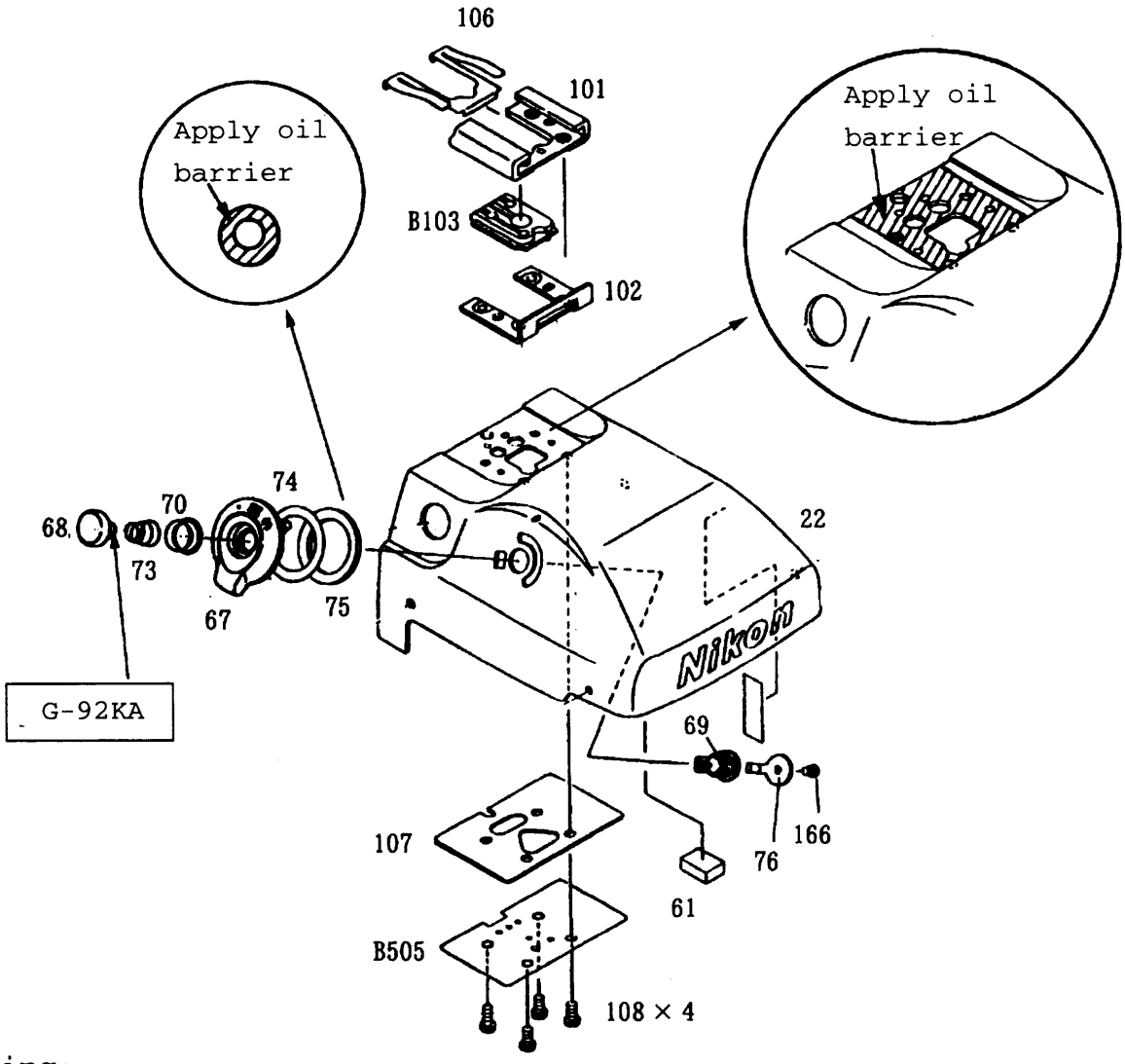


Solder cords (X5)

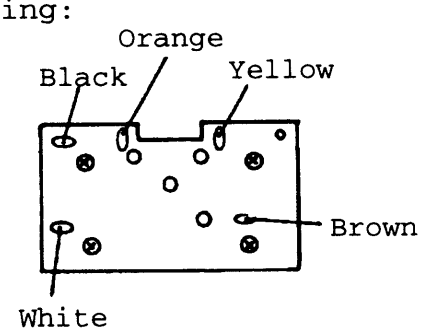




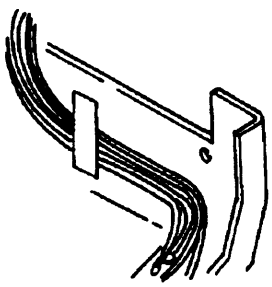
Top cover unit



Wiring:



Arranging cords



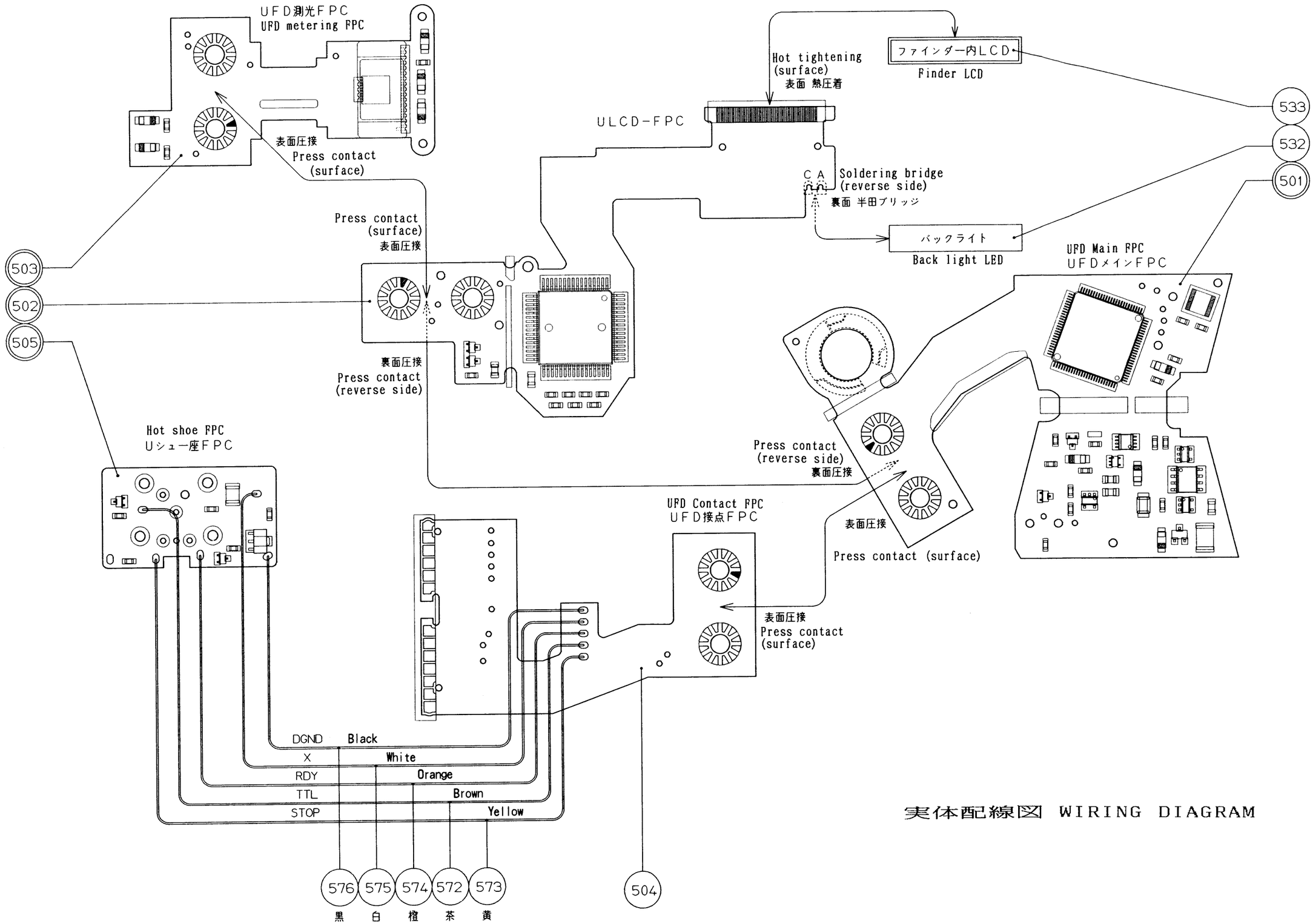
Rearranging (untangling) wires.

電気編

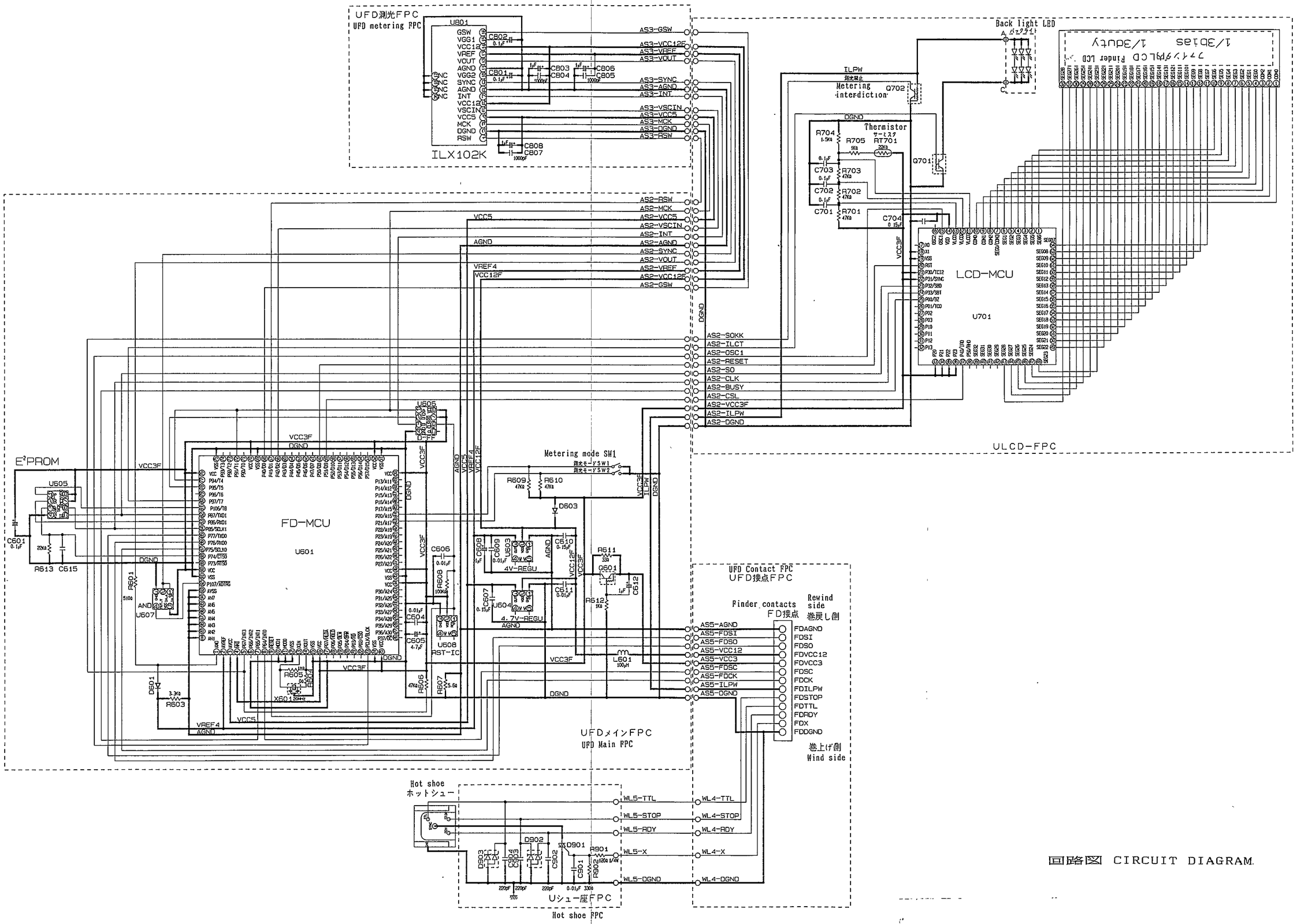
実体配線図 E1
回路図 E2
ＵＦＤメインＦＰＣ E3
ＵＬＣＤ－ＦＰＣ E6
ＵＦＤ測光ＦＰＣ E9
ＵＦＤ接点ＦＰＣ E11
Ｕシュー座ＦＰＣ E12

ELECTRIC CIRCUIT

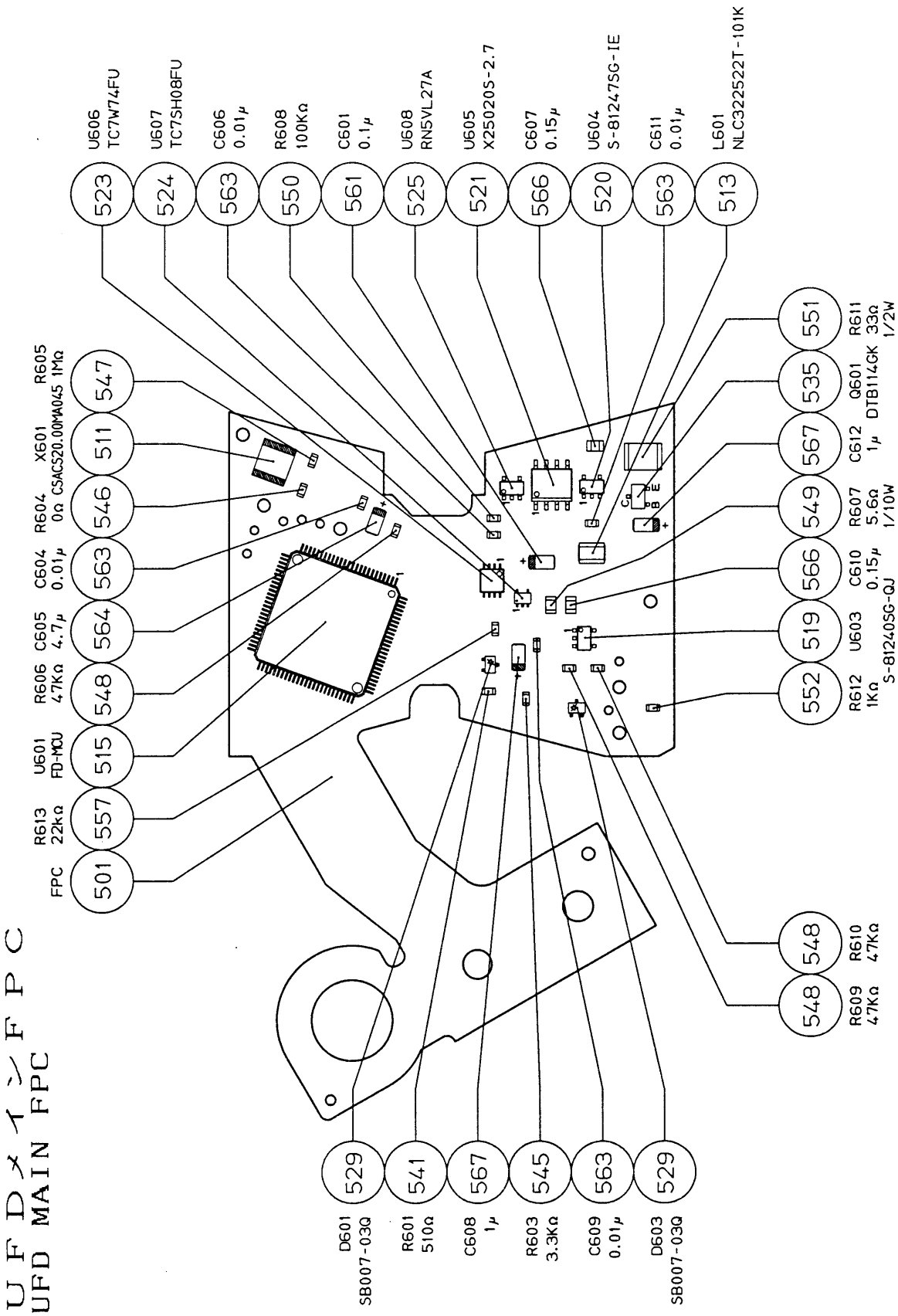
WIRING DIAGRAM E1
CIRCUIT DIAGRAM E2
UFD MAIN FPC E3
ULCD FPC E6
UFD METERING FPC E9
UFD CONTACT FPC E11
U HOT SHOE FPC E12

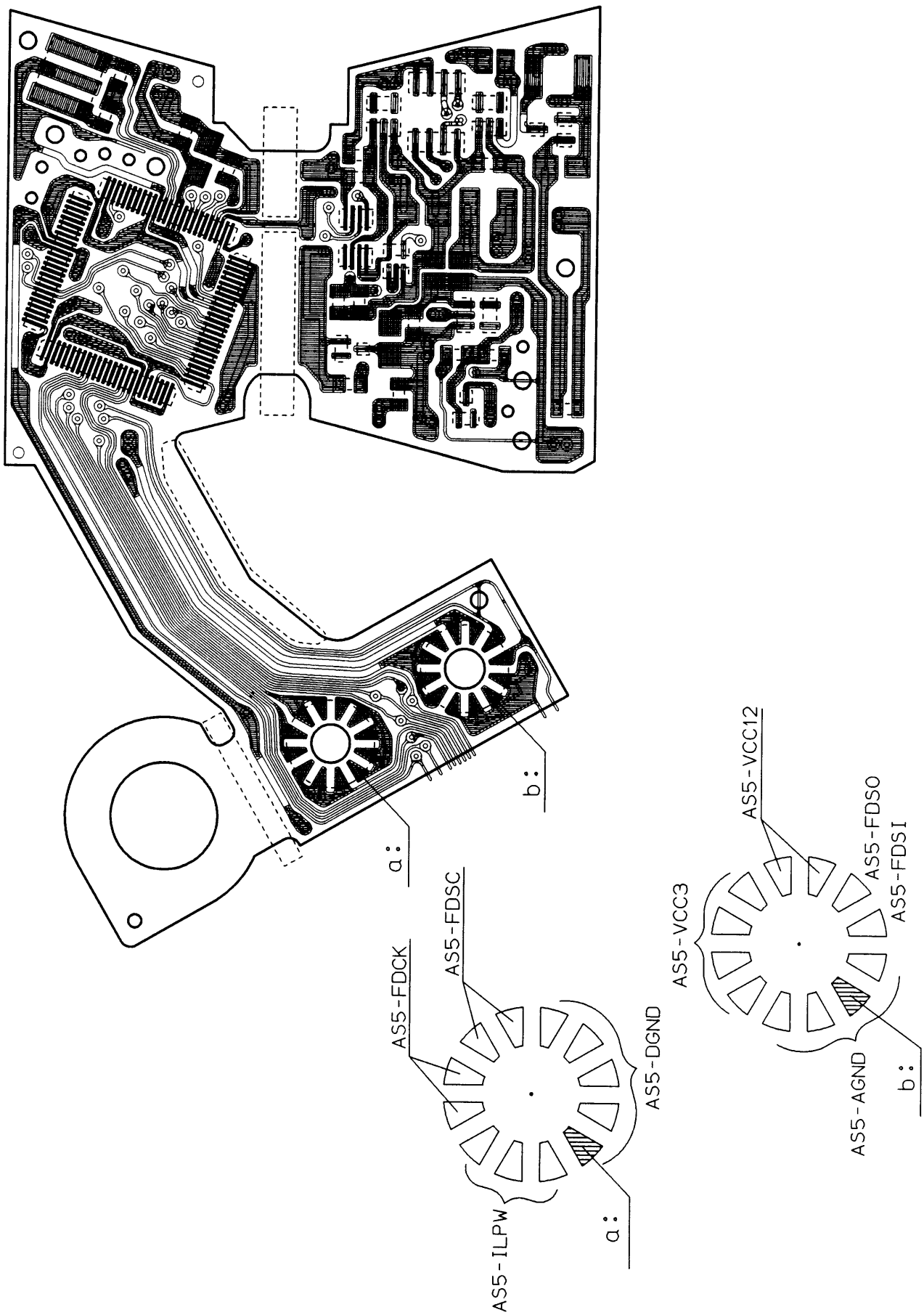


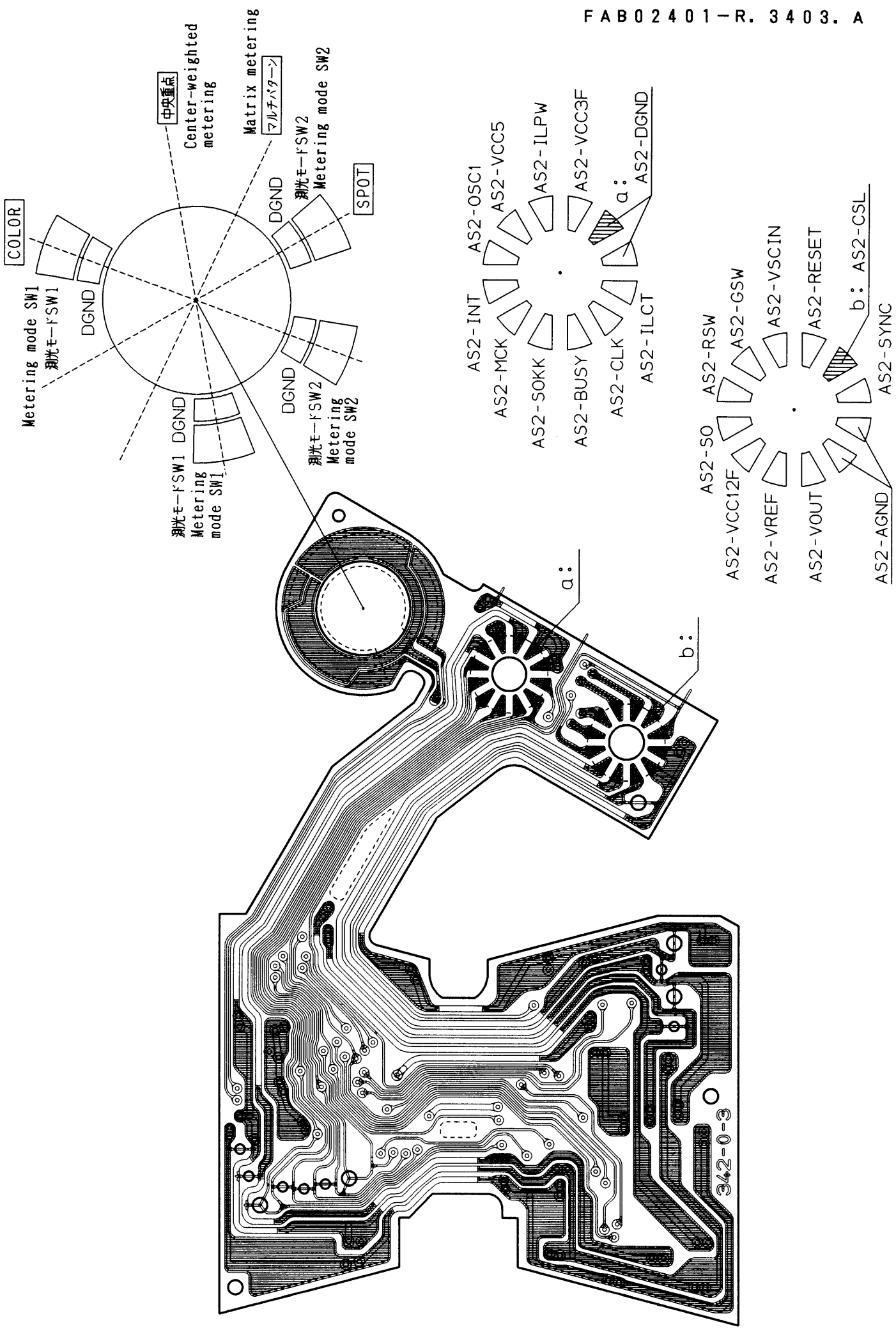
実体配線図 WIRING DIAGRAM



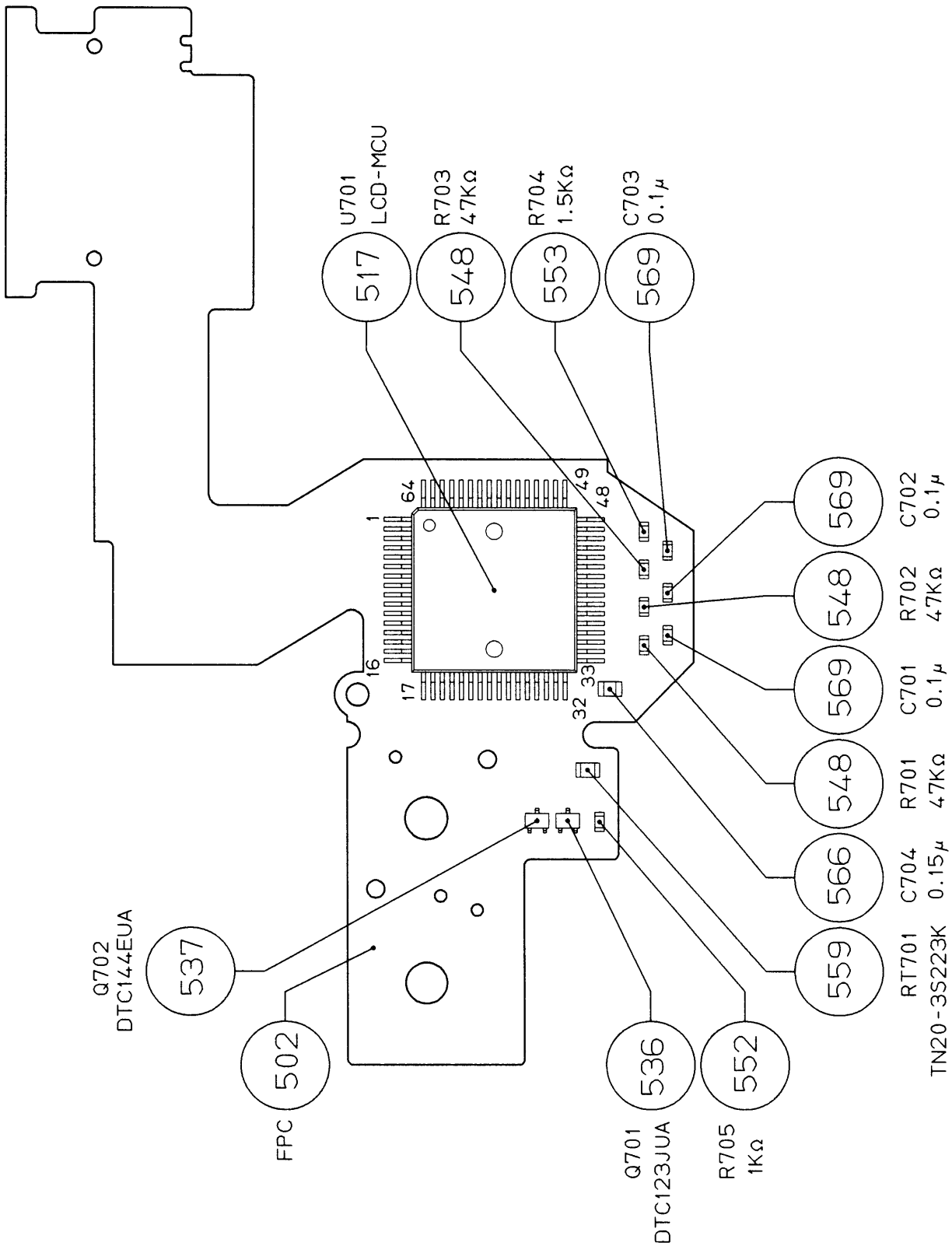
回路図 CIRCUIT DIAGRAM

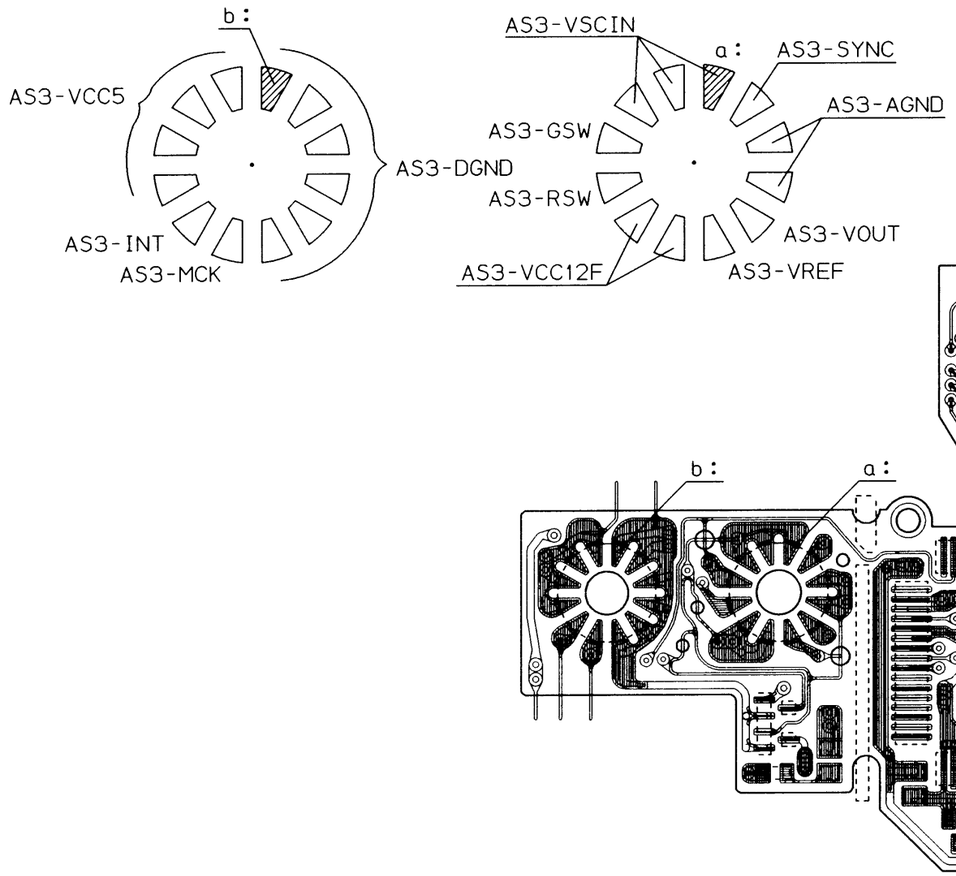

UFDメインFPC
UFD MAIN FPC
FPC
501
R613 22kΩ
557
U601 FD-MCU
515
R606 47KΩ
548
C605 4.7μ
564
C604 0.01μ
563
R604 0Ω
546
X601 CSACS20.00MA045
511
R605 1MΩ
547
U606 TC7W74FU
523
U607 TC7SH08FU
524
C606 0.01μ
563
R608 100KΩ
550
C601 0.1μ
561
U608 RN5VL27A
525
U605 X25020S-2.7
521
C607 0.15μ
566
U604 S-81247SG-IE
520
C611 0.01μ
563
L601 NLC322522T-101K
513
R612 1KΩ
552
U603 S-81240SG-QJ
519
C610 0.15μ
566
R607 5.6Ω 1/10W
549
C612 1μ
567
Q601 DTB114GK
535
R611 33Ω 1/2W
551
R609 47KΩ
548
R610 47KΩ
548
D601 SB007-03Q
529
R601 510Ω
541
C608 1μ
567
R603 3.3KΩ
545
C609 0.01μ
563
D603 SB007-03Q
529

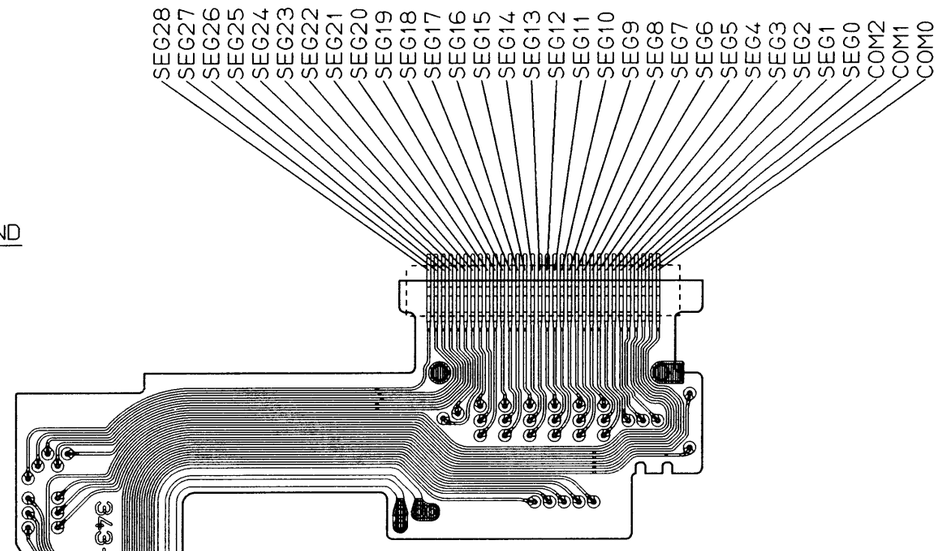

a:
b:
AS5-FDCK
AS5-FDSC
AS5-DGND
AS5-ILPW
a:
AS5-VCC12
AS5-VCC3
AS5-FDSO
AS5-FDSI
AS5-AGND
b:

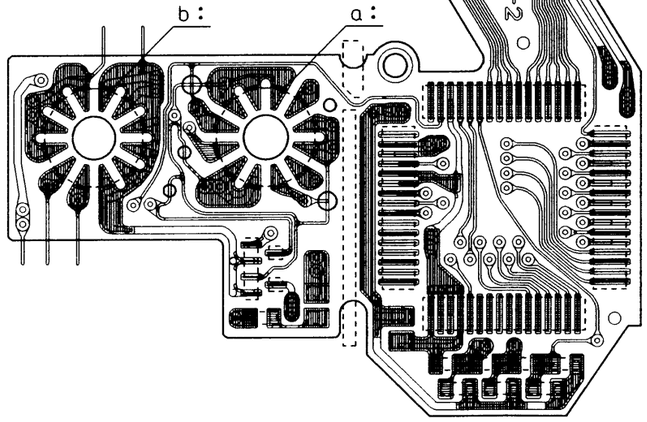

COLOR
Metering mode SW1
測光モードSW1
DGND
中央重点
Center-weighted metering
Matrix metering
マルチパターン
DGND
測光モードSW2
Metering mode SW2
SPOT
測光モードSW1 DGND
Metering mode SW1
DGND
測光モードSW2
Metering mode SW2
AS2-OSC1
AS2-VCC5
AS2-ILPW
AS2-VCC3F
a:
AS2-DGND
AS2-INT
AS2-MCK
AS2-SOKK
AS2-BUSY
AS2-CLK
AS2-ILCT
AS2-RSW
AS2-GSW
AS2-VSCIN
AS2-RESET
b: AS2-CSL
AS2-SO
AS2-VCC12F
AS2-VREF
AS2-VOUT
AS2-AGND
AS2-SYNC
a:
b:
342-0-3

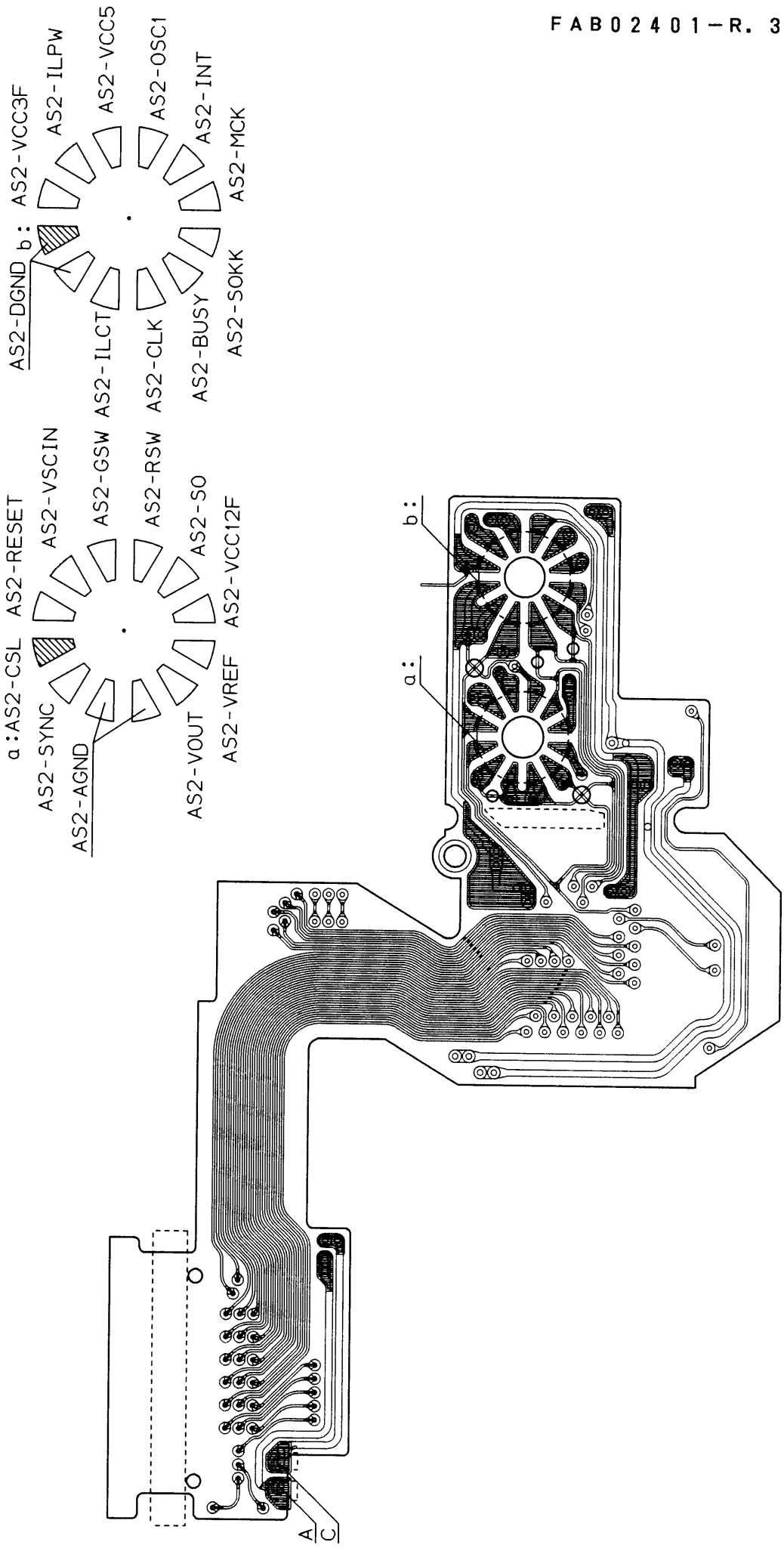
U L C D — F P C

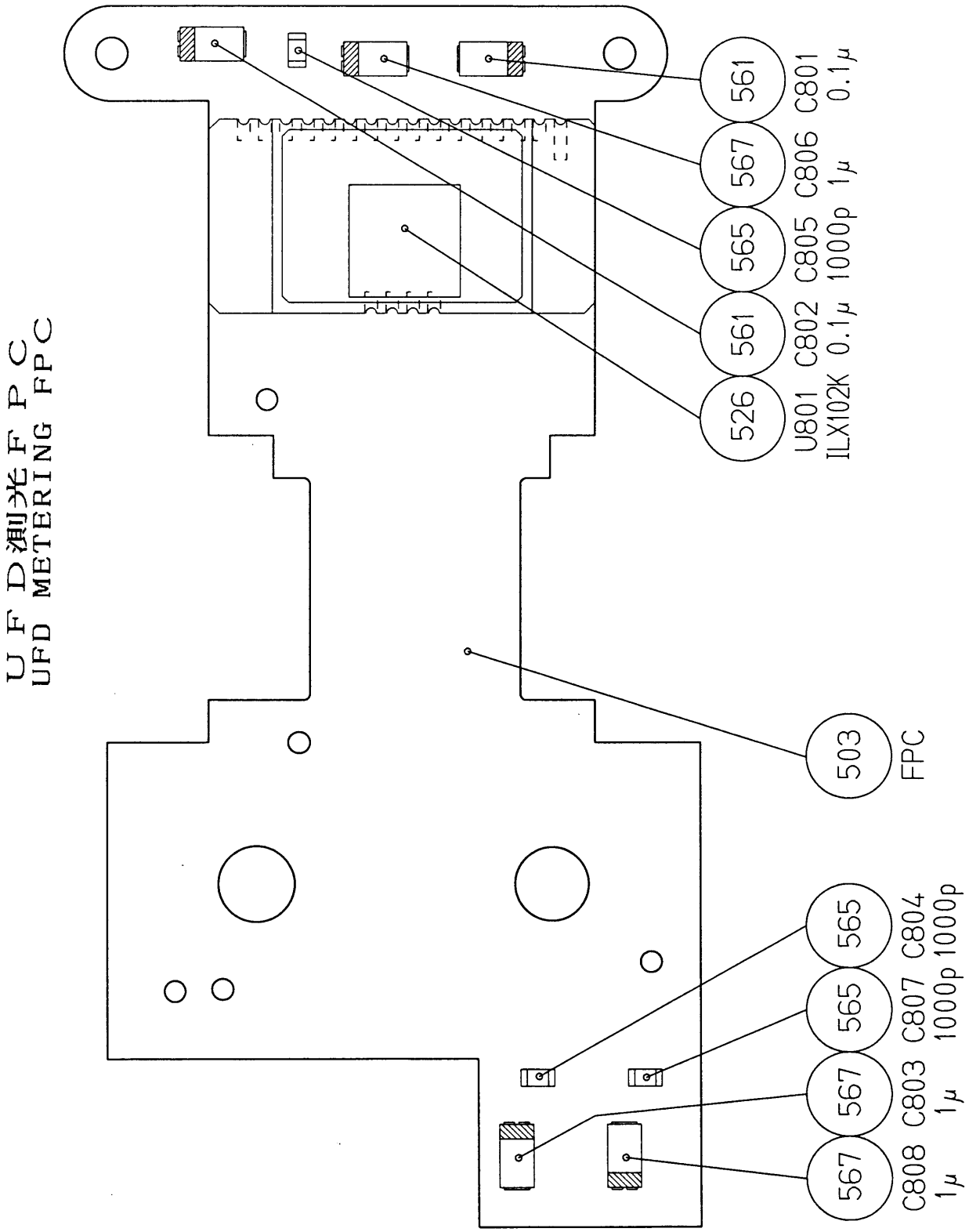

U701
LCD-MCU
517
R703
47KΩ
548
R704
1.5KΩ
553
C703
0.1μ
569
64
49
48
1
16
17
33
32
569
C702
0.1μ
548
R702
47KΩ
569
C701
0.1μ
548
R701
47KΩ
566
C704
0.15μ
559
RT701
TN20-3S223K
Q702
DTC144EUA
537
502
FPC
536
Q701
DTC123JUA
552
R705
1KΩ

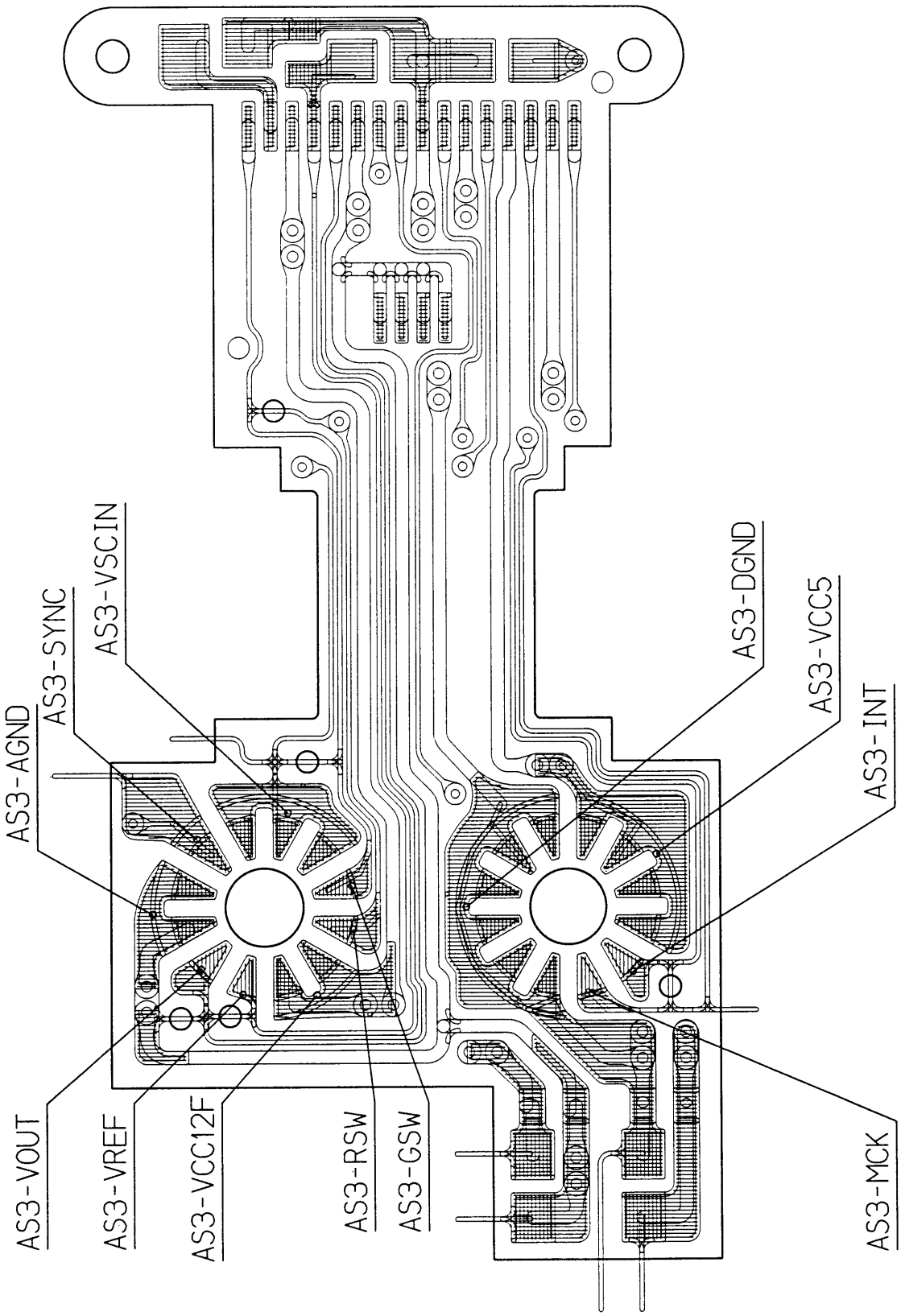

b:
AS3-VCC5
AS3-DGND
AS3-INT
AS3-MCK
AS3-VSCIN
a:
AS3-SYNC
AS3-AGND
AS3-GSW
AS3-RSW
AS3-VOUT
AS3-VCC12F
AS3-VREF


SEG28
SEG27
SEG26
SEG25
SEG24
SEG23
SEG22
SEG21
SEG20
SEG19
SEG18
SEG17
SEG16
SEG15
SEG14
SEG13
SEG12
SEG11
SEG10
SEG9
SEG8
SEG7
SEG6
SEG5
SEG4
SEG3
SEG2
SEG1
SEG0
COM2
COM1
COM0

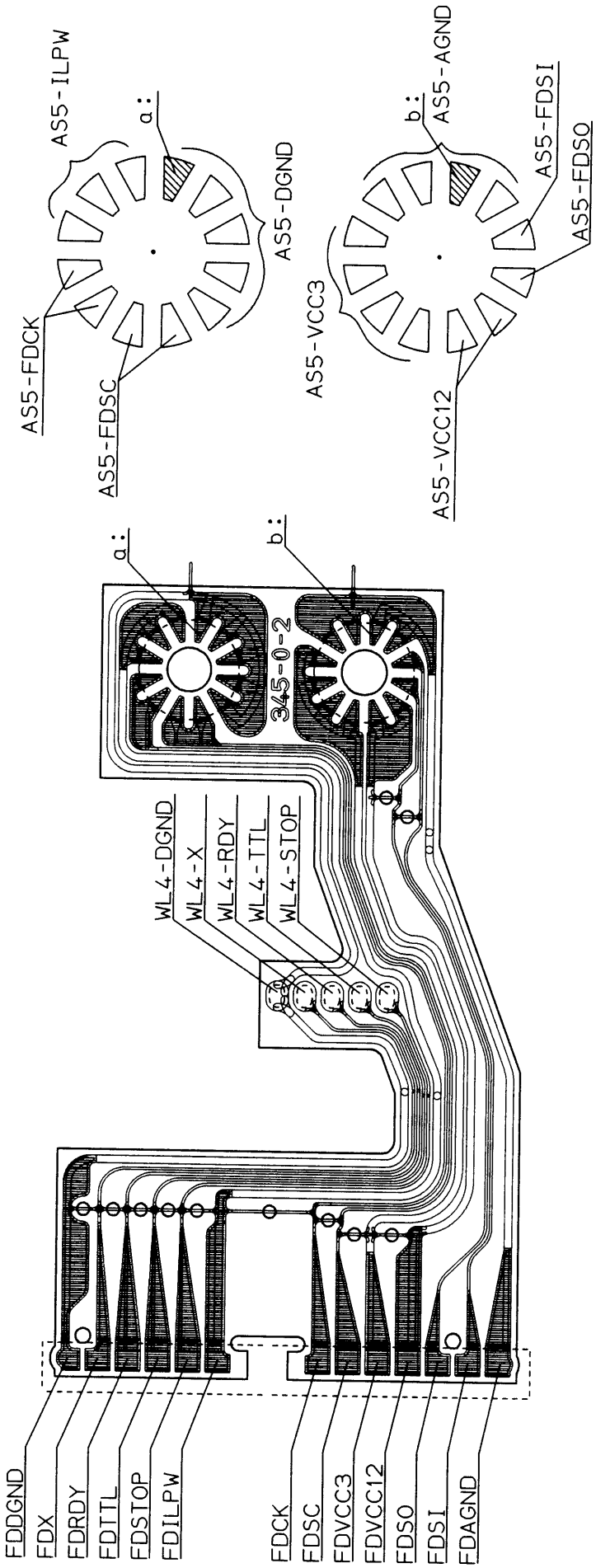

b:
a:
34-0-2


a:AS2-CSL
AS2-RESET
AS2-VSCIN
AS2-GSW
AS2-RSW
AS2-SO
AS2-VCC12F
AS2-SYNC
AS2-AGND
AS2-VOUT
AS2-VREF
b:
AS2-DGND
AS2-VCC3F
AS2-ILPW
AS2-VCC5
AS2-OSC1
AS2-INT
AS2-MCK
AS2-ILCT
AS2-CLK
AS2-BUSY
AS2-SOKK
a:
b:
A
C

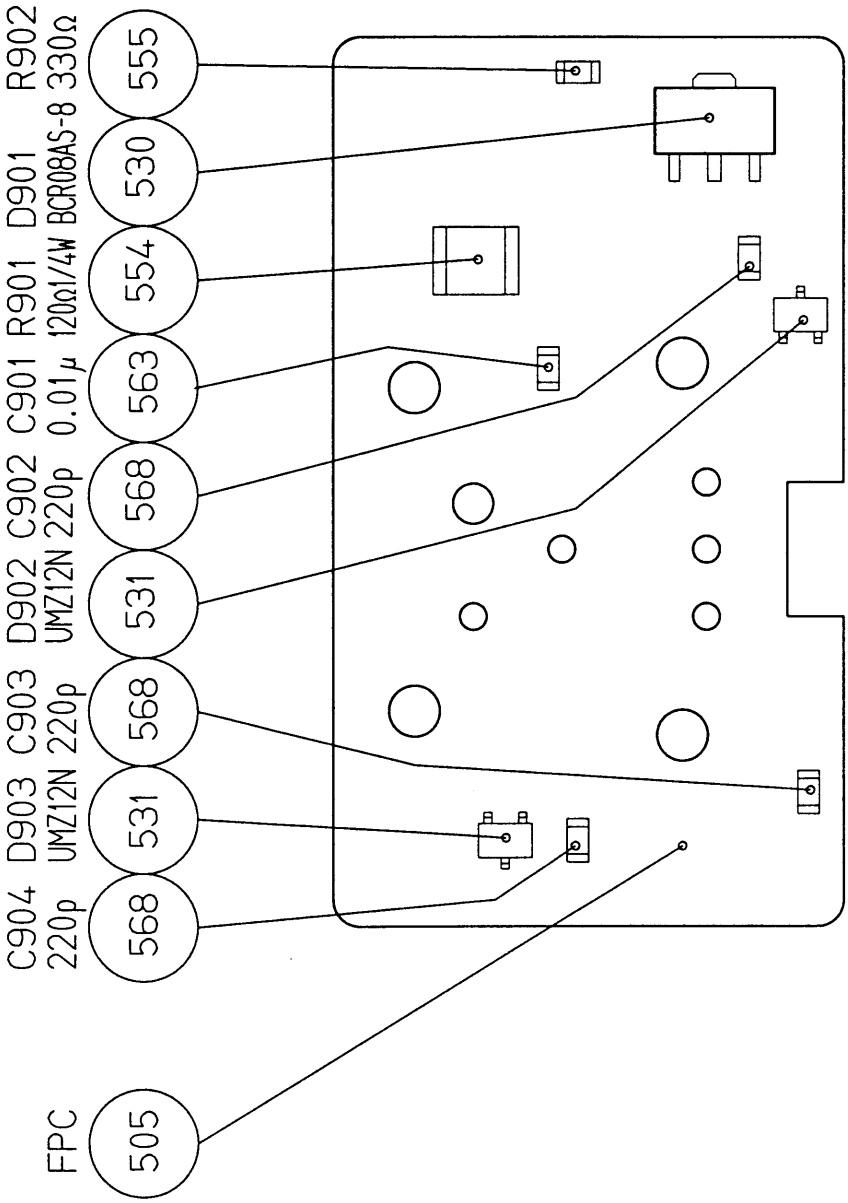

U F D 測光 F P C
UFD METERING FPC
526
561
565
567
561
U801 C802 C805 C806 C801
ILX102K 0.1μ 1000p 1μ 0.1μ
503
FPC
567
567
565
565
C808 C803 C807 C804
1μ 1μ 1000p 1000p

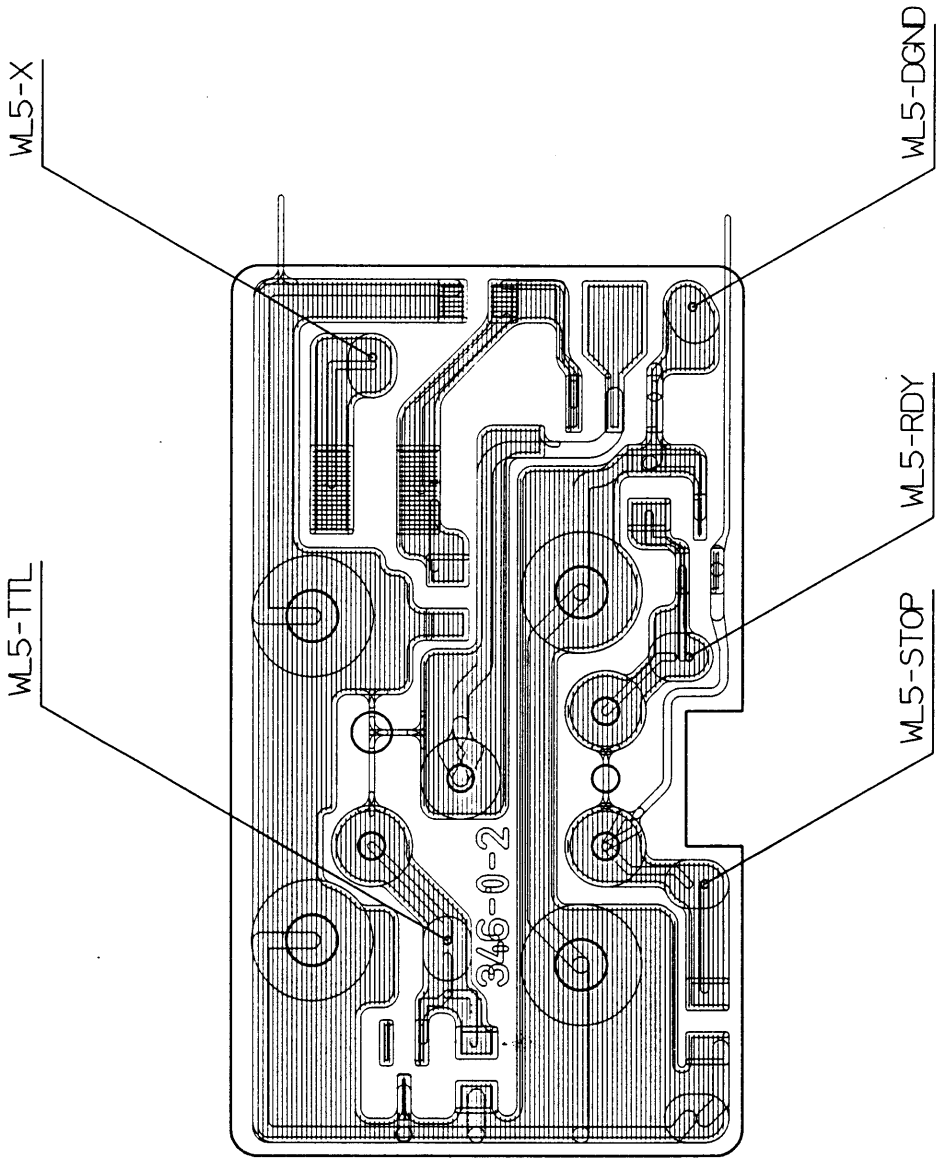

AS3-AGND
AS3-SYNC
AS3-VSCIN
AS3-DGND
AS3-VCC5
AS3-INT
AS3-VOUT
AS3-VREF
AS3-VCC12F
AS3-RSW
AS3-GSW
AS3-MCK

UFD接点FPC
UFD CONTACT FPC

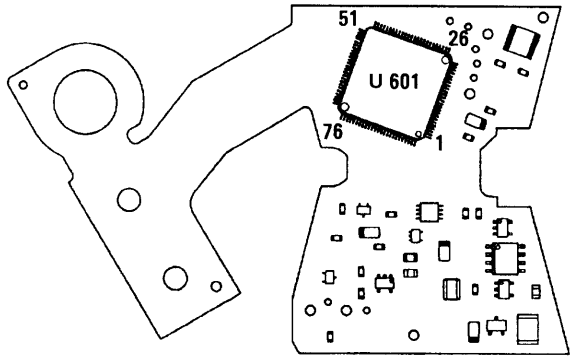


Uシュー座FPC
U HOT SHOE FPC




WL5-X
WL5-DGND
WL5-RDY
WL5-TTL
WL5-STOP
346-0-2

U601
FD-MCU



Pin No.	Name	Connected point	Function
1	AN0	UAMP:CCD Vout/DA-30:SPD Vout	A/D Analog (input)
2	AVREF	+3V	A/D Reference voltage (input)
3	AVCC	+3V	Analog power source
4	NMI	+3V	
5	P67/INT3/WKUP3	External communication sig	Flash cancellation
6	P66/INT2/WKUP2		
7	P65/INT1/WKUP1	LCDMCU:BUSY	External communication sig
8	P64/INT0/WKUP0	FD contact :FDSC	External communication sig
9	RESET	RESET IC	FD-MCU RESET
10	MOD1	DGND	
11	MOD0	DGND	
12	VSS	DGND	
13	XIN	20KHz Oscilator	Clock
14	XOUT	20KHz Oscilator	Clock
15	VSS	DGND	
16	VCC	+3V	
17	P07/HLDA		
18	P06/HOLD		
19	P05/BLW		
20	P04/BHW		
21	P03/RD		
22	P02/CSB		
23	PCLK/BCLK	LCDMCU:OSC1	LCDMCU Clock 1.25MHz
24	VSS	DGND	
25	VCC	+3V	
26	P37/DC		
27	P36/A30		
28	P35/A29		
29	P34/A28		
30	P33/A27		
31	P32/A26		
32	P31/A25		
33	P30/A24		
34	VCC	+3V	
35	VSS	DGND	
36	VCC	+3V	
37	P27/A23		
38	P26/A22		
39	P25/A21		
40	P24/A20		
41	P23/A19		
42	P22/A18		
43	P21/A17	SW2	Metering mode SW input 2
44	P20/A16	SW1	Metering mode SW input 1

Pin No.	Name	Connected point	Function
45	P17／A15		
46	P16／A14		
47	P15／A13		
48	P14／A12		
49	P13／A11		
50	VCC	+3V	
51	VSS	DGND	
52	VCC	+3V	
53	P57／D15		
54	P56／D14		
55	P55／D13		
56	P54／D12		
57	P53／D11		
58	P52／D10		
59	P51／D9	LCDMCU:CS L	
60	P50／D8	LCDMCU:RESET	Reset output for LCDMCU
61	P47／D7		
62	P46／D6		
63	P45／D5		
64	P44／D4		
65	P43／D3		
66	P42／D2	UAMP:CCD Vscin／DA-30:SPD CS	Output port
67	P41／D1	UAMP:CCD SW2／DA-30:SPD LS	Output port
68	P40／D0	UAMP:CCD SW1／DA-30:SPD CHG	Output port
69	VSS	DGND	
70	VCC	+3V	
71	P90／T0		
72	P91／T1	UAMP:CCD φMCK／DA-30:SPD CLK	Cyclical timer output
73	P92／T2		
74	P93／T3		
75	VSS	DGND	
76	VCC	+3V	
77	P94／T4	CCD:T1	Out-shot timer trigger output
78	P95／T5	CCD:φ INT	Out-shot timer output
79	P96／T6		
80	P97／T7	Illuminater Tr.	Illuminator light control
81	P106／T8	EEPROM:CS	
82	P87／TXD1	EEPROM:LCDMCU:SO	CSI1 data output
83	P86／RXD1	EEPROM:SI	CSI1 data input
84	P85／SCLKI1／SCLKO1	EEPROM:LCDMCU:CLK	CSI1 Clock output
85	P77／TXD0	FD contact:FDSO	CSI0 data output
86	P76／RXD0	FD contact:FDSI	CSI0 data input
87	P75／SCLKI0／SCLKO0／INT6	FD contact:DSCK	CSI0 Clock input
88	P74／CTS0／INT5		
89	P73／RTS0／INT4		
90	VCC	+3V	
91	VSS	DGND	
92	P107／ADTRG	CCD:Vtim	A／D timing input
93	AVSS	AGND	
94	AN7	AGND	
95	AN6	AGND	
96	AN5	AGND	
97	AN4	AGND	
98	AN3	AGND	
99	AN2	AGND	
100	AN1	AGND	